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## PERSONAL.

Mr. John Graham, Superintendent of the Water-Works at South Bend, Ind., has resigned.

Mr. Robert McKinnon has been appointed City Engineer of York, Pa., to succeed Mr. James G. Durbin.

Mr. Charles F. Hammond has been appointed Electric Light and Water Commissioner of Lansing, Mich.

Mr. H. T. Hirst, late of the Pennsylvania Lines West of Pittsburg, has been made Borough Engineer of Sewickley, Pa.

Mr. Frederick F. Ingram has been appointed Lighting Commissioner of Detroit, Mich., to succeed Mr. J. L. Hudson.

Mr. John G. Vaught has been appointed Superintendent of Buildings for the Boroughs of Richmond and Queens, New York city.

Mr. J. Frank Hubbard has been appointed Secretary and Treasurer of the Plainfield Water Supply Co., Plainfield, N. J., to succeed Mr. E. R. Pope.

Mr. Frederic W. Darlington, M. Am. Inst. E. E., of Philadelphia, has been appointed Electrical Engineer of the new capitol building at Harrisburg, Pa.

Mr. Benjamin Reece, M. Am. Soc. C. E., has been appointed Engineer to the Continuous Rail Joint Co. of America, Newark, N. J., with an office at Room 917, Monadnock Bldg., Chicago.

Mr. Daniel L. Mott, Assoc. M. Am. Soc. C. E., for the past four years Assistant City Surveyor of Utica, N. Y., has opened an office in that city, at 68 Arcade Bldg., and will carry on a general engineering business.

Mr. V. Y. Smith has been appointed Secretary and Treasurer of the Water-Works at Springfield, O., succeeding Mr. Wm. R. Smith, and Mr. C. S. Courson has been appointed the Superintendent, to succeed Mr. George S. Cotter.

Mr. William S. Logan, formerly of the Engineering Department of the Metropolitan Traction Co., of New York, has been appointed Township Surveyor and Engineer of Kearney, N. J., to succeed Mr. C. M. Borrie, of Newark, N. J.

Lieut. Col. Garrett J. Lydecker, Corps of Engineers, U. S. Army, has been ordered to duty at Grand Rapids, Mich., to relieve Capt. Curtis McD. Townsend, M. Am. Soc. C. E., Corps of Engineers, who has been ordered to Rock Island, Ill., to relieve Lieut. Col. William R. King, Corps of Engineers.

Mr. William H. Canniff, General Manager of the Lake Shore & Michigan Southern Ry., with headquarters in Cleveland, O., has been elected President of the New York, Chicago & St. Louis R. R., to succeed Mr. S. R. Callaway, now President of the New York Central & Hudson River R. R.

Mr. Clarence Coleman, M. Am. Soc. C. E., U. S. Assistant Engineer, in local charge of the construction of the concrete superstructure to the breakwater at Marquette, Mich., under Maj. Clinton B. Sears, Corps of Engineers, U. S. Army, has been ordered to report for duty on the construction of the concrete superstructure to the south pier of the ship's canal at Duluth, Minn.

Mrs. Alfred Solano and Mrs. Frederick H. Stevens, daughters of the late Horace G. Brooks, founder of the Brooks Locomotive Works, Dunkirk, N. Y., have presented to the Young Men's Christian Association, of Dunkirk, the Brooks homestead in that city. The building is to be used as a memorial hospital and association building in memory of Mr. and Mrs. Brooks. Mr. F. H. Stevens is now the President of the works.

Mr. F. B. Lovell, Instructor in the College of Civil Engineering, Cornell University, Ithaca, N. Y., has been appointed Adjunct Professor of Civil Engineering, Columbia University, New York. He is a graduate of Cornell University of the class of 1891, and has had considerable field work as Assistant Engineer in charge of location, construction and maintenance for the Michigan Central R. R. and three years' experience as Instructor in Civil Engineering in Lafayette College, Easton, Pa. As Adjunct Professor of Civil Engineering in Columbia he will have charge of the Department of Railway Engineering and of the Summer School in Surveying, near Litchfield, Conn.

## ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

CHICAGO ELECTRICAL ASSOCIATION.
May 20. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.
THE ENGINEERS' CLUB OF PHILADELPHIA.
May 21. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.
ENGINEERS' CLUB OF COLUMBUS.
May 21. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.
CIVIL ENGINEERS' CLUB OF CLEVELAND.
May 24. Secy., Wm. H. Searles, Case Library Bldg., Cleveland, O.
FRANKLIN INSTITUTE.
May 24. "Electric Machine Shop Practice," James Hobart. Secy., Wm. H. Wahl, 15 So. 7th St., Philadelphia, Pa.
AMERICAN INSTITUTE ELECTRICAL ENGINEERS.
May 25. Secy., R. W. Pope, 26 Cortlandt St., New York city.
ENGINEERING ASSOCIATION OF THE SOUTH.
May 26. Nashville, Tenn. Secy., C. B. Wilson, Nashville, Tenn.
CANADIAN SOCIETY OF CIVIL ENGINEERS.
May 26. Secy., C. A. McNab, 112 Mansfield St., Montreal, Can.
BROOKLYN ENGINEERS' CLUB.
May 26. "Aesthetic Consideration in Engineering Work," V. C. Griffith. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.
INDIANAPOLIS ENGINEERING CLUB.
May 28. Secy., Edson F. Folsom, Indianapolis, Ind.
AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
May 30, June 4. Spring meeting, Niagara Falls, N. Y. Secy., Prof. F. R. Hutton, 12 W. 31st St., New York city.
ENGINEERS' CLUB OF ST. LOUIS.
June 1. Secy., Richard McCulloch, St. Louis, Mo.
WESTERN SOCIETY OF ENGINEERS.
June 1. "Obstructive Bridges and Docks of the Chicago River," G. A. M. Liljencrantz, and "Measuring Apparatus of Kings County Survey," Samuel McElroy. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
June 2. Secy., C. W. Hunt, 220 West 57th St., New York city.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
June 3. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.
NATIONAL ELECTRIC LIGHT ASSOCIATION.
June 7-9. Annual meeting, Chicago, Ill. Secy., George F. Porter, 136 Liberty St., New York city.
AMERICAN FOUNDRYMEN'S ASSOCIATION.
June 7-10. Annual meeting, Cincinnati, O. Secy., John A. Penton, Buhl Block, Detroit, Mich.
OHIO STREET RAILWAY ASSOCIATION.
June 8. Annual meeting, Columbus, O. Secy., Frank J. J. Sloat, Akron, O.
NEW ENGLAND RAILROAD CLUB.
June 8. Secy., Edward L. Janes, P. O. Box 1158, Boston, Mass.
ST. LOUIS RAILWAY CLUB.
June 10. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.
NORTHWESTERN ELECTRICAL ASSOCIATION.
June 10. Secy., Theo. R. Mercein, 511 Montgomery Bldg., Milwaukee, Wis.
MONTANA SOCIETY OF ENGINEERS.
June 11. Secy., Albert S. Hovey, Helena, Mont.
ENGINEERS' CLUB OF KANSAS CITY.
June 13. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.
LOUISIANA ENGINEERING SOCIETY.
June 13. "Landscape Engineering as Applied to Park Improvements," Capt. George H. Grandjean. Secy., J. F. Coleman, 712 Union St., New Orleans, La.
DENVER SOCIETY OF CIVIL ENGINEERS.
June 14. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.
NORTHWEST RAILWAY CLUB.
June 14. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.
AMERICAN WATER-WORKS ASSOCIATION.
June 14-16. Annual meeting, Buffalo, N. Y. Secy., Peter Milne, 95 William St., New York city.
BOSTON SOCIETY OF CIVIL ENGINEERS.
June 15. Secy., S. E. Tinkham, City Hall, Boston, Mass.
MASTER CAR BUILDERS' ASSOCIATION.
June 15-17. Annual meeting, Saratoga, N. Y. Secy., Jno. W. Cloud, 974 Rookery, Chicago, Ill.
SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
June 16. Secy., F. A. Charpiot, Macon, Ga.
ENGINEERS' CLUB OF CINCINNATI.
June 16. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O
NEW YORK RAILWAY CLUB.
June 16. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.
TECHNICAL CLUB OF OMAHA.
June 20. Secy., J. Harry Lawrie, Omaha, Neb.
ENGINEERS' CLUB OF MINNEAPOLIS.
June 20. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.
ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
June 21. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.
AMERICAN RAILWAY MASTER MECHANICS' ASSOCIATION.
June 20-22. Annual meeting, Saratoga, N. Y. Secy., John W. Cloud, 974 Rookery, Chicago, Ill.
WESTERN FOUNDRYMEN'S ASSOCIATION.
June 22. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.
ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
June 22. Secy., Frank H. Olmstead, Los Angeles, Cal.

BROOKLYN ENGINEERS' CLUB.—The last regular meeting of this club for the season was held May 12, at which Mr. W. E. Belknap read a paper on "Improved Street Railway Construction." In the discussion which followed the method was criticised unfavorably by the members representing railway interests, and favorably by the city engineers.

Several informal talks will occur during May and June, of which notice will be given. A. J. Provost, Jr., Secy.

NEW YORK ELECTRICAL SOCIETY.—The first special meeting of this society, of which several will be held during the Electrical Exposition, occurred on May 12, at Madison Square Garden, New York city. After a brief business meeting, at which about 100 new members were elected, Dr. Schuyler S. Wheeler delivered a lecture, entitled "Electrically Driven Machinery." In the course of his remarks five principal reasons were given for the rapidly increasing use of electricity for driving all forms of machinery. These were convenience of control, of location, saving of power, cleanliness, saving of space, etc.

NATIONAL ELECTRIC LIGHT ASSOCIATION.—Final arrangements are being made for the meeting of this association to be held at Chicago, Ill., June 7-9. Headquarters will be the Auditorium Hotel, and the following papers will be read in the convention hall of that hotel: "Cost of Generation and Distribution of a Unit of Electricity," Calvin W. Rice; "General Distribution from Central Stations by Alternating Currents," Herbert A. Wagner; "General Distribution from Central Stations by Direct Currents," Louis A. Ferguson; "Public Lighting with Relations to Public Ownership or Control," Alex. Dow; and "Transformer Economy," Winder Elwell Goldsborough.

LOUISIANA ENGINEERING SOCIETY.—At the meeting of this society, held at New Orleans, on May 9, a paper, entitled "Municipal Control of Public Works," by H. J. Malochee, was read by the secretary.

After outlining the meaning of municipal control and the works which might be included, reasons were given for the proper disposition of these works and how the best results could be obtained for the least money.

In the discussion, which was quite spirited, a number disagreed with that part of the paper which said that some public works should not be controlled by the municipality because the employees of the government render generally a service not as efficient as that of employees of private corporations.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—The 37th meeting of this society will be held at Niagara Falls, beginning May 31st and continuing until June 3. The convention headquarters will be at the Cataract House. The papers to be read are as follows:

"Plea for a Standard Method of Conducting Engine Tests," Geo. H. Barrus; "Extension of the Standard Uniform Methods of Conducting and Reporting Steam Engine Tests," Bryan Donkin; "The Hanging and Setting of Fire Tube Boilers," O. C. Woolson; "What is the Heating Surface of a Steam Boiler?" C. W. Baker; "Relations Between the Purchaser, the Engineer and the Manufacturer," Jas. W. See; "One Hundred Years of Ginning and Baling Cotton," Geo. A. Lowry; "Graphic Diagrams and Gypsum Models," R. H. Thurston; "The Protection of Steam Heated Surfaces," Chas. L. Norton; "Bending Tests of Locomotive Stay-Bolts," F. J. Cole; "Note on the Carbon Contents of Piston Rods," J. E. Johnson; "Experiments on Cast-Iron Cylinders," C. H. Benjamin; "Mechanical Properties of Certain Aluminum Alloys," R. C. Carpenter, and "Methods of Manufacture and Tests of a New Seamless Tube," R. C. Carpenter and J. P. Fickinger.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.—The annual meeting of the Institute for the election of officers and the transaction of other general business was held in New York city, on May 17. The report of the council was submitted, giving, among other things, the membership of the Institute as 1,068, made up of 2 honorary, 352 regular and 744 associate members. The income for the year amounted to $10,027. Committees were appointed to count the ballots and examine proxies. While these committees were at work attention was called to the large number of associate members in comparison with the number of regular members, and it was suggested that the examining committee suggest to such members as it considered eligible that they apply for transfer to full membership. The fact that only 150 of the new badges had been sold during the year and that only 23 old ones were exchanged was commented on. The election of the following officers was announced: President, Arthur E. Kennelly; Vice-Presidents, Robert B. Owens, William Stanley, Cary T. Hutchinson; Secretary, R. W. Pope; Treasurer, George A. Hamilton; Managers, Hubert Lloyd, Samuel Sheldon, George F. Sever and Chas. P. Steinmetz.

THE FRANKLIN INSTITUTE.—At the meeting of the mining and metallurgical section held on May 11, Mr. William Tatham read a paper on "Gold Mining in Georgia," giving a detailed account of the occurrence and past and present methods of working the ores, and also the favorable outlook for this district for mining carried on under proper conditions.

Mr. Cuilliam H. Clamer read a paper on the "Microstructure of Bearing Metals," illustrating the importance of this method of anaylsis for the practical work of making the alloys. J. S. de Benuiville, Secy.

At the meeting of the institute held on May 18 three papers were read, as follows: "The Diesel Motor," E. D. Meier, engineer of the Diesel Motor Co., in which the principles and working of this latest type of gas engine were described; "An Inertia Indicator," Wilfred Lewis, a device for obtaining the inertia of various machines; "The Past and Present Conditions and Resources of the Philippine Islands," Prof. Wm. P. Wilson and W. S. Ryan.

CIVIL ENGINEERS' CLUB OF CLEVELAND.—The regular meeting of this club was held on May 10. A proposed amendment to the constitution was offered changing the name of the club to "The Cleveland Society of Engineers." This was again amended to "The Cleveland Society of Civil Engineers," and the matter was laid over. Mr. Bernard L. Green then read a paper, entitled "The Portland Cement Industry of the World." He gave a brief history of the industry and described its present condition in the various countries of Europe and in America, showing a remarkable increase in the production of cement in this country during the last few years. He described briefly the several methods of manufacture which depend somewhat on the character of the raw

material available, and gave the statistics of production in the various countries where Portland cement is manufactured. According to the latest information the United States ranks fourth among the countries producing Portland cement, the annual output being 2,304,000 bbls., or 6.6% of the total output of the world. Germany ranks first, with 38.4%; England second, with 23.7%, and France third, with 8.6%. After adjournment the laboratory of the Osborn Company was visited, the apparatus and specimens of cement examined, and the breaking tests of some samples witnessed. Wm. H. Searles, Secy.

RAILWAY SIGNALING CLUB.—The principal subject for discussion at the May meeting, held at the Great Northern Hotel, Chicago, May 10, was the proposition that the club should investigate the relative merits of the various forms of apparatus and appliances, and adopt certain standard forms. Those in favor pointed out the general desirability of standards and the entire absence of said standards in signal work, while those opposed to the movement (all of whom represented railway companies having signal departments) argued that the results would not justify the amount of work required in deciding upon the standards, and that railways would not be likely to adopt standards put forth by the club. Mr. Sperry (National Switch & Signal Co.) thought that a set of standards would be of great benefit to and be largely used by companies making a beginning with signal and interlocking plants, and would tend to reduce the cost of these plants, while they would strengthen the hands of the club in making recommendations for improvements, etc. Mr. Gillingham (Illinois Central R. R.) thought that the preparation of drawings of the various parts and the selection of certain drawings as standard would involve a great deal of work, and would have little practical result, as most of the large railways now have their own standards on their own favorite designs, and would not be likely to abandon these in favor of the club's standards. Mr. Elliott (C., M. & St. P.) was strongly in favor of the movement, and thought it would benefit the railway companies, the signal manufacturing companies, and the club. Mr. Trautman (Associate Editor of Engineering News) spoke in favor of standards on general principles, but suggested that as signaling is still comparatively new in this country, a great many changes and modifications in apparatus may be expected, and that therefore it might be well to conduct an investigation as to the various forms now in use, with a view to making certain recommendations, rather than at once adopting standards. This would be in line with the recommendations of the American Society of Civil Engineers as to rail sections, tests of cement, etc., and with the "recommended practice" of the Master Car Builders' Association. It was finally decided to send out a circular letter to get the views of all the members of the club on this subject.

Two topics for discussion were introduced by Mr. Sperry, as follows: (1) The greatest distance at which crossovers can be operated from the tower, using only one lever; (2) The practice in regard to the use of bracket posts. One member operated a crossover at a distance of 1,200 ft. without difficulty, while another had had trouble with a shorter distance, the switch rails, locks and detector bars requiring a very hard pull to be given to the lever. As to bracket posts, the remarks made seemed to show that there is no general system in their use or arrangement.

## NEW PUBLICATIONS.

TRANSACTIONS ENGINEERING ASSOCIATION OF THE SOUTH.—Papers 1897. Published by the Association, Nashville, Tenn. Paper; pp. 73; illustrated.

This pamphlet contains the papers read during 1897, the annual address of the retiring president, the list of officers and a revised and complete list of the members of the association.

PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE WEST VIRGINIA SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.—Published by the Society. Pamph.; 6 x 9½ ins.; pp. 73.

This pamphlet is the proceedings of the annual meeting held at Morgantown, W. Va., Jan. 26-27, 1898. It contains the usual reports, and among others the following papers: "The Coal Mining Industry of West Virginia," James W. Paul, chief mine inspector, a historical review and statement of the present output; "Professional Status and Ethics," C. R. Jones, in which the important part taken by the engineer in the world's progress and the small proportion of credit received in comparison with more showy and less useful professions was noted.

IOWA ENGINEERING SOCIETY.—Proceedings of the Tenth Annual Meeting, held at Cedar Rapids, Ia., Jan. 19 and 20, 1898. Secretary-Treasurer, E. P. Boynton, Cedar Rapids. Paper; 6 x 9 ins.; pp. 152; illustrated.

The papers and addresses in this report are as follows: "Street Grades, by L. H. Stone; "Street Car Service," by B. Schriener; "The County Surveyor as a Map Publisher," by J. S. Pingrey; "Laying a Submerged Water Main," by E. P. Boynton; "The Centerville Cemetery," by Wm. Steyh; "Education as a Means," by Prof. J. T. Beard; "The Water Supply of Des Moines," by L. Higgins; "Interpretation of Sanitary Water Analysis," by Prof. Floyd Davis; "Iowa Geology from an Engineering View," by Prof. W. S. Calvin; "Lights and Lenses," by Prof. W. H. Mahaffie; "Artesian Wells of Iowa," by Prof. W. H. Norton; "Portland Cement," by J. W. Dickinson; "Des Moines Paving Brick and Clays," by E. P. Boynton; "Tests of Iowa Building Stone and Paving Brick," by Prof. A. Marston; "Graphic Determination of Stresses," by Prof. A. V. Sims; "Purification of Water for R. R. Purposes" (discussion), by Prof. Floyd Davis.

PAPERS READ BEFORE THE ENGINEERING SOCIETY OF THE SCHOOL OF PRACTICAL SCIENCE, TORONTO.—R. W. Angus, editor, Toronto. Paper; 8¾ x 5¾ ins.; pp. 164; illustrated. 50 cts.

Contents: Address of President H. R. Carpenter; "The Modern Basic Open Hearth Process," F. N. Speller; "Road Construction," A. W. Campbell; "History and Chemistry of the Cyanide Process," W. W. Stull; "Disposal of Sewage," P. H. Brice; "Longitude by Lunar Distances," L. B. Stewart; "The Accuracy of the Assay of Pyritic Ores," J. W. Bain; "The Shaft Governor," R. W. Angus; "A Discussion of the Considerations Affecting the Cost of Electric Power," H. P. Elliott; "Gold Mining in Nova Scotia," F. W. Christie; "Notes on the Relations of the Mechanical Properties of Steel to the Chemical Composition," W. M. Minty, and "Tests of Ontario Building Stones."

REPORT OF PROGRESS OF EXPLORATION IN THE COUNTRY BETWEEN LAKE ST. JOHN AND JAMES BAY.—Made under instructions from the Department of Colonization and Mines, Quebec., by Henry O'Sullivan, D. L. S. and C. E., Mem. Can. Soc. C. E. and Inspector of Surveys. P. Q. Printed by order of Legislature, Quebec. Paper; 9¾ x 6¾ ins.; pp. 20; illustrated.

This exploration follows the line of the proposed Canadian Transcontinental Railway, from Lake St. John, northwest of Quebec, to James Bay, at the lower end of Hudson's Bay. The Pacific terminus of this railway would be at Skeena, 3,800 miles from Yokohama, Japan. This preliminary report shows the general detail of this route as far as Waswanipi, and indicates a country fairly well timbered, with sections of rich clay lands susceptible of cultivation. Generally easy grades and good alinement were found for a railway location between the points named.

ANNUAL REPORT TEXAS STATE RAILROAD COMMISSION.—Commissioners, John H. Reagan, L. J. Storey and Allison Mayfield. Pub. Doc. Paper; 6 x 9 ins.; pp. 322.

This report contains the usual list of uncommonly well-arranged and instructive statistical tables which has been the characteristic of previous reports of the Texas Railroad Commission, and a brief summary of the findings and acts of the Commissioners under the various state laws. It is interesting to note that, notwithstanding all the criticism which has been made respecting the policy advocated and carried out by the Commission, new railway construction in Texas is active and no railway of any importance in the state is in the hands of receivers. Since the preceding report the state law placing the rates, classifications, rules, etc., applying to freight handled by express companies under the jurisdiction of the Commission has become effective and the Commission has assumed active charge of this.

ANNUAL REPORT OF THE NEW HAMPSHIRE RAILROAD COMMISSION.—H. M. Putney, J. G. Bellows and E. B. S. Sanborn, Commissioners. Pub. Doc. Cloth; 6 x 9 ins.; pp. 276; with map.

This report contains the returns of the 24 steam railways and seven street railways doing business in the state during the year ending June 30, 1897. Notwithstanding the small volume of business of the preceding year, the figures of steam railway operations show a still further decrease during the year covered by them. Of the six street railways only one paid a dividend. The report states that steady progress has been made in equipping cars with automatic couplers and air brakes in accordance with the Federal laws, and also that the order of the Commission that all frogs and switches should be blocked has been complied with. The report states further that while the experience with the train brake has been satisfactory:

> Experience in this state with the M. C. B. coupler does not show it to be a great improvement over the old link and pin, which it is superseding. When in perfect order, under favorable circumstances, it serves the purpose for which it was designed, but it often fails to work, and is then much more dangerous than a simpler device. Among those whose duties compel them to use it it is not in favor, and our investigation of accidents that have taken place in coupling cars do not show that it lightens their labors or lessens the danger to which they are exposed.

Considering the firm position which the M. C. B. coupler now holds as a meritorious device in the minds of most engineers, the statement quoted arouses some curiosity as to whether the opinion has any sound basis in fact, or is simply a belated specimen of the very curious opposition which existed in New England and nowhere else some seven or eight years ago to the M. C. B. standard coupler.

ANNUAL REPORT NEW YORK RAILROAD COMMISSION.—Commissioners, Ashley W. Cole, Frank M. Baker and Geo. W. Dunn. Pub. Doc. 2 Vols. Cloth; 6 x 9 ins.; pp. 824 and 1,406; maps.

The report proper of the Commissioners occupies the first 78 pages of Volume I., including the special report on the Garrisons accident (Eng. News, Dec. 23, 1897), the remainder of the volume being devoted to a digest of the decisions rendered by the Commission and the texts of the different state laws bearing on railways. Volume II. is given up entirely to statistics of operations of the various railways in the state. Physically the railways of New York are in good condition. General improvements of bridges, roadbed, track and structures have been made all through the state, and a number of the larger roads have undertaken or completed important special improvements, among which may be mentioned the Park Ave. viaduct and the new Grand Central station of the New York Central & Hudson River R. R. in New York city, and the new stations built by the Erie R. R. at Middletown and Jamestown. The report states also that it now appears probable that within the next two years the long projected and urgently demanded union station at Albany, N. Y., will be an accomplished fact. The actual increase in the railway mileage of the state during the year was 57.56 miles.

There were no rate disturbances of any kind during the year. There was, however, a decrease in gross earnings as compared with the previous year, but the reduction in operating expenses was sufficient to bring about an increase in net earnings. The number both killed and injured in railway accidents was smaller than in 1896, for both passengers and employees, and no passenger was killed by causes beyond his own control. In the matter of new legislation, the Commission has to report the passage of the long delayed grade crossing law, which gives it the power to control and abolish railway crossings at grade throughout the state. No appropriation has yet been made for carrying this law into effect, and among a number of other recommendations for new legislation the Commission asks that this be done.

In regard to street railways the Commission renews its recommendation that a law should be passed, with suitable penalties for violation, limiting the number of passengers to be carried by street cars to a number "no greater than can be seated and conveniently stand in the spaces between the seats." The Commission announces that during the year it has granted authority to change the motive power on nearly all of the surface lines in New York city to the underground electric or conduit system. Elsewhere in the state the overhead trolley system is used exclusively.

## TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 6 x 9 ins.; 9 x 12 ins., and 8 x 10 ins.)

ALTERNATING CURRENT FANS.—Westinghouse Electric & Manufacturing Co., Pittsburg, Pa. Circular, 4 x 10 ins.

This circular, No. 54 of the Westinghouse series, describes the characteristic features of a special 35 Sirocco desk fan for alternating circuits.

CONNECTORS AND TERMINALS.—The C. McIntire Co., Newark, N. J. Pamph.; 6⅞ x 9¾ ins.

This is a descriptive pamphlet and circular presenting the specialties manufactured under the McIntire patents. These include tube connectors and splices, fuse links, branch block fuses, cut-outs and lightning arresters.

PNEUMATIC HAMMERS.—The Ridgely & Johnson Tool Co., Springfield, Ill. Pamph.; 6⅞ x 9¾ ins.; pp. 21; illustrated.

This pamphlet and the circular which accompanies it illustrate and describe quite fully the valveless and counterbalanced hammers and riveters manufactured by the above-named firm. Two of the special riveters were described in Engineering News of March 3, 1898.

MODERN METHODS FOR THE ANNIHILATION OF TIME IN TRANSMISSION OF COPY.—Lamson Consolidated Store Service Co., Lowell, Mass. Pamph.; 8⅞ x 6 ins.

The above lengthy title introduces a small but neat pamphlet which describes systems of pneumatic tube and cable carriers for the carriage of small parcels between the departments of a newspaper office, store, factory or other place of business.

RECENT BALDWIN LOCOMOTIVES.—Baldwin Locomotive Works, Philadelphia, Pa. Pamph.; 9 x 6 ins.; pp. 32; illustrated.

This pamphlet gives half-tone illustrations and the principal dimensions of 15 different narrow-gage locomotives recently turned out by the firm named above. All but one of these engines were built to supply foreign orders, and the countries represented in these orders are: Cape Colony, Japan, West Australia, Colombia, Brazil, Guatemala and Norway.

MAP OF CUBA.—The Sargent Co., Chicago, Ill. Single sheet; 22 x 28 ins.

This is a sheet containing a map of the world and of the West Indies to small scale, and a larger scale map of the Island of Cuba and the City of Havana, which the above firm is sending on application to railway officers and other users of steel castings. These maps are printed in colors by Rand, McNally & Co., of Chicago, Ill., and are practically reprints of the well-known standard atlas maps of that firm.

MINERAL WOOL FOR INSULATION OF COLD STORAGE AND USE IN ARCHITECTURE.—The Illinois Steel Co., Rookery Bldg., Chicago. Paper; 5½ x 7 ins.; pp. 15.

We advise any of our readers who have anything to do with frame building construction to send for this little pamphlet. The uses to which mineral wool may be applied with advantage and real economy are understood by few architects and engineers. This pamphlet illustrates how mineral wool may be applied as a non-conductor, fire and vermin stop, and sound deadening in buildings of various classes.

THE WALKER PIVOTAL TROLLEY WITH GROVER TROLLEY HEAD.—Walker Co., Cleveland, O. Circular.

This circular, No. 1077 in the company's series, describes the trolley base, head and pole furnished by the Walker Company. The head referred to is a novelty designed to prevent the harp catching in any overhead construction should the wheel jump the wire.

SWITCHBOARDS FOR LIGHTING PLANTS.—Circular No. 1076 by the same company, superseding previous number 1037, describes its switchboards for isolated lighting and power plants.

WALKER CAR MOTORS FOR STREET LINES, ELEVATED OR SUBURBAN TRAFFIC.—Walker Co., Cleveland, O. Pamph.; 7¾ × 10¾ ins.

This circular is numbered 1,073 and supersedes No. 1054. It enumerates the prime requisites for a perfect railway motor, and then shows how the Walker motor fulfils these requirements. The explanation is accompanied by a number of half-tone and line illustrations to emphasize the points brought out.

RAILWAY SWITCHBOARDS.—Walker Co., Cleveland, O. Circular; 8 × 10¾ ins.

This circular illustrates the types of panel switchboards made by the Walker Co. to accompany its railway machinery. The panel system, now quite generally adopted, includes a generating panel and a feeder panel. These are simply sections of a switchboard upon which are mounted the proper instruments. As the lighting, railway or power plant grows another panel is added to the main board. The circular, which is numbered 1074, describes this in some detail.

STEEL PRODUCTS.—The Pennsylvania Steel Co., Shelton, Pa. Cloth; 11 × 8 ins.; pp. 375; illustrated.

This is a complete catalogue of the standard rolled shapes, steel castings, special steels and structural work manufactured by the Pennsylvania Steel Co. and by the Maryland Steel Co., whose works at Sparrow's Point, Md., are controlled by it. Practically all of the first 100 pages are devoted to illustrations and descriptions of standard and special railway rail sections, angle bars, bolts and other connections. The remainder of the contents is about equally divided between street railway rails and connections, frog, switch and signal work, structural steel shapes of various kinds, and a number of handsome illustrations of prominent bridges and buildings turned out by the bridge and structural department of the works. In connection with the structural shapes described there is given a full text of the company's standard specifications governing the chemical and physical properties of structural and open hearth plate and rivet steel.

CAN I BECOME AN ELECTRICAL ENGINEER?—The Electrical Engineer Institute of Correspondence Instruction. New York city. Pamph; 4¾ × 6¾ ins.; pp. 64; illustrated.

This pamphlet describes a new "correspondence school" devoted to electrical engineering, which has been established by our contemporary, "The Electrical Engineer." We have no desire to disparage the quality of instruction offered by this and other schools conducted on a similar plan; but in view of the great number of young men annually graduated after four years' study of electrical engineering, we see little chance for those who rely on only such instruction as the correspondence schools can give to reach high rank in the profession. No doubt, however, these schools can give much aid to linemen, dynamo tenders, workmen in electrical factories and others who wish to know more of the principles on which their daily work is based.

LIGHTNING ARRESTERS.—General Electric Co., Schenectady, N. Y. Pamph.; 5¼ × 7¾ ins.; illustrated.

This forms another of the series of artistic pamphlets issued by this company. As its title implies, it is devoted to the several forms of lightning arresters manufactured by the General Electric Co. Starting with a remarkably fine picture showing several lightning bolts, which forcibly calls attention to the need of some protecting apparatus, the essential points of a successful lightning arrester are briefly outlined. Then follows illustrations and descriptions of the types used for direct current circuits from 100 to 850 volts and for alternating circuits up to almost any voltage. The first mentioned arresters depend upon the familiar magnetic blowout principle, the patents for which are owned by the General Electric Co., while the latter employs an air gap.

## CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

| Bids to be opened. | Work. | Place. | See Eng. News. |
|---|---|---|---|
| May 19. | Boulevard work, | St. Paul, Minn. | May 12 |
| May 19. | Sewers, etc., | Buffalo, N. Y. | May 12 |
| May 19. | Water-works, etc., | Parnassus, Pa. | May 5 |
| | Advertised, Engineering News, May 5 and 12. | | |
| May 19. | Draw span, | Beverly, O. | May 5 |
| May 19. | Sewerage system, | Parnassus, Pa. | May 5 |
| | Advertised, Engineering News, May 5 and 12. | | |
| May 19. | Sidewalks, paving, etc., | Kansas City, Mo. | May 19 |
| May 19. | Grading, paving, etc., | Philadelphia, Pa. | May 19 |
| May 20. | Masonry bridges (2), | Newark, N. J. | May 19 |
| May 20. | Gas pipe line (28 miles), | Charlestown, W.Va. | May 19 |
| May 20. | Sewers, | Indianapolis, Ind. | May 19 |
| May 20. | Water mains, | Juneau, Wis. | May 19 |
| May 20. | Stone sidewalks, | Troy, N. Y. | May 19 |
| May 20. | Garbage disposal, | Troy, N. Y. | May 19 |
| May 20. | Railway, | East Las Vegas, N. Mex. | Apr. 28 |
| May 20. | Court house, | Parsons, W. Va. | Apr. 21 |
| May 20. | Water bonds ($12,000), | St. Johnsville, N. Y. | Apr. 14 |
| May 20. | Pipe sewers, | Cleveland, O. | May 12 |
| May 20. | Water pipe, castings, etc., | New London, Conn. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| May 20. | Curbing, etc., | Massillon, O. | May 12 |
| May 20. | Sidewalks (4,300 sq.yds.), | Lynchburg, Va. | May 12 |
| May 20. | Sea wall, | Boston, Mass. | May 12 |
| May 20. | Brick paving, | Holyoke, Mass. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| May 20. | Steam pipe, | Chicago, Ill. | May 12 |
| May 21. | Tunnel, etc., | New Rochelle, N. Y. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| May 21. | Outlet sewer, etc., | New Rochelle, N. Y. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| May 21. | Church building, | Minneapolis, Minn. | May 12 |
| May 21. | Highway bridges (2), | Long Creek, Ill. | May 12 |
| May 21. | Brick and asphalt paving, | Evansville, Ind. | May 12 |
| May 21. | Wooden hull, | Montgomery, Ala. | Apr. 21 |
| | Advertised, Eng. News, Apr. 21 to May 12. | | |
| May 21. | Culvert and bridges (2), | Cincinnati, O. | Apr. 28 |
| May 21. | Miscellaneous supplies, | West Point, N. Y. | Apr. 28 |
| May 21. | School building, etc., | White Earth, Minn. | May 5 |
| May 21. | Hospital building, | Fort Thomas, Ky. | May 5 |
| May 21. | Stone arch bridge, | Sand Beach, Mich. | May 19 |
| May 21. | Excavation, | Sea Side Park, N. J. | May 19 |
| May 21. | Brick (30,000 sq.yds.), | Wilmington, Del. | May 19 |
| May 21. | Market building, | Detroit, Mich. | May 19 |
| May 21. | Iron bridge, | English, Ky. | May 19 |
| May 21. | Building, | Pittsburg, Pa. | May 19 |
| May 21. | Pipe sewers (3,550 ft.), | Revere, Mass. | May 19 |
| May 22. | Grading (4 miles), | Crookston, Minn. | May 12 |
| May 23. | Business building, | Marshalltown, Ia. | May 12 |
| May 23. | Road scrapers, etc., | Minnewaukon, N. Dak. | May 12 |
| May 23. | Pile bridges (5), | Minnewaukon, N. Dak. | May 12 |
| May 23. | Asphalt paving, | Camden, N. J. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| May 23. | Brick paving, etc., | So. Norwalk, Conn. | May 12 |
| May 23. | Brick paving, | Marshalltown, Ia. | May 5 |
| May 23. | Steel bridges (175 ft. long), | Ellendale, N.Dak. | May 5 |
| May 23. | Paving, | East Liverpool, O. | Apr. 28 |
| May 23. | Pipe sewer, | Lafayette, Ind. | May 19 |
| May 23. | Steel girder bridge, | Syracuse, N. Y. | May 19 |
| May 23. | Dynamo, etc., | Coraopolis, Pa. | May 19 |
| May 23. | Boilers, heating, etc., | Philadelphia, Pa. | May 19 |
| May 23. | Wharf, | Merigomish Island, N. S. | May 19 |
| May 23. | Brick sewers, | Toledo, O. | May 19 |
| May 23. | Electric railway, | Hamilton, Ont. | May 19 |
| May 23. | Water pipe, | Bellevue, O. | May 19 |
| May 23. | Screens, etc., at water-works, | Baltimore | May 19 |
| May 23. | Improving Burr St., | St. Paul, Minn. | May 19 |
| May 23. | School bonds ($60,000), | Orange, N. J. | May 19 |
| May 23. | School building, | New London, Wis. | May 19 |
| May 23. | Building repairs, | Pittsburg, Pa. | May 19 |
| May 24. | Plumbing, etc., | New York, N. Y. | May 19 |
| May 24. | Steel cases, | Chicago, Ill. | May 19 |
| May 24. | Bridges (2), | Manhattan, Kan. | May 19 |
| May 24. | Electric book conveyor, | Chicago, Ill. | May 19 |
| May 24. | County bridges (3), | Annapolis, Md. | May 19 |
| May 24. | Switches, insulators, etc. | Chicago, Ill. | May 19 |
| May 24. | Building repairs, | New York, N. Y. | May 19 |
| May 24. | Hydrants, valves, pipe, etc., | Harrisburg, Pa. | May 19 |
| May 24. | Macadamizing, etc., | Durham, Conn. | May 19 |
| May 24. | Grading, flag, curb, etc., | Schenectady, N. Y. | May 19 |
| May 24. | Brick paving, | Troy, N. Y. | May 19 |
| May 24. | Brick paving, | Cleveland, O. | May 5 |
| May 24. | Bridges (3), | Caledonia, N. Dak. | May 12 |
| May 25. | Storm sewer, | Meadville, Pa. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| May 25. | Asylum building, | Peoria, Ill. | May 12 |
| May 25. | Brick paving, | Oskaloosa, Ia. | May 12 |
| May 25. | Hospital buildings, | San Jose, Cal. | May 12 |
| May 25. | Tunneling, | Scranton, Pa. | May 12 |
| | Advertised, Eng. News, May 12 and 19. | | |
| May 25. | Bridges (3), | Columbus, O. | May 12 |
| May 25. | Granite paving (20,000 sq.yds.), | Butte, Mont. | May 19 |
| May 25. | Brick paving, | Meadville, Pa. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| May 25. | Lighting bonds, | Madisonville, O. | May 5 |
| May 25. | School building, | Cedar Rapids, Ia. | May 5 |
| May 25. | Bridge superstructure, | Zuck, O. | May 5 |
| May 25. | County bridges (9), | Pembina, N. Dak. | May 5 |
| May 25. | Water franchise, | Ridgewood, N. J. | Mar. 24 |
| | Advertised, Eng. News, Mar. 24 to Apr. 28 | | |
| May 25. | Library building, | Kankakee, Ill. | May 19 |
| May 25. | School building, | Providence, R. I. | May 19 |
| May 25. | Paving, | Hartford, Conn. | May 19 |
| | Advertised, Engineering News, May 19. | | |
| May 26. | Water-works, | Plainfield, Ill. | May 19 |
| May 26. | Abutments, | Boston, Mass. | May 19 |
| May 26. | Electric lighting, | New Brunswick, N. J. | May 19 |
| May 26. | School building, | Mount Oliver, Pa. | May 19 |
| May 26. | Pipe sewer (1,100 ft.), | Danbury, Conn. | May 19 |
| May 26. | Macadamizing, | Plainfield, N. J. | May 19 |
| May 26. | Road work, | Hamden, Conn. | May 19 |
| May 26. | Hospital building, | Marshalltown, Ia. | May 5 |
| May 26. | Improving roads (3), | Pittsburg, Pa. | May 5 |
| May 26. | Paving (3 streets), | East Liverpool, O. | May 5 |
| May 26. | Dredging, | Sabine Pass, Tex. | May 5 |
| May 26. | Sewers, | Cleveland, O. | May 5 |
| May 27. | Light and water bonds, | Caldwell, O. | May 5 |
| May 27. | Electric plant, | Caldwell, O. | May 5 |
| May 27. | Steel-bulled tenders (5), | St. Louis, Mo. | Apr. 28 |
| | Advertised, Eng. News, Apr. 28 to May 19. | | |
| May 27. | Skylights, | Pittsburg, Pa. | May 19 |
| May 27. | Sewers, | Chicago, Ill. | May 19 |
| May 27. | Dredging (100,000 cu.yds.), | New York | May 19 |
| May 27. | School building, | Carpentersville, Ill. | May 19 |
| May 27. | Brick and pipe sewers, | Cedar Rapids, Ia. | May 19 |
| May 27. | Sewer and water-works, | Fort Mojave, Ariz. | May 19 |
| May 27. | Paving and curbing, | Omaha, Neb. | May 19 |
| May 27. | Brick paving, curb, etc., | Fulton, N. Y. | May 19 |
| May 27. | Hospital building, | West Chester, Pa. | May 19 |
| May 28. | Pipe sewers, | Coraopolis, Pa. | May 19 |
| May 28. | Sewers, | Washington, D. C. | May 19 |
| | Advertised, Engineering News, May 19. | | |
| May 28. | Paving and curbing, | North Adams, Mass. | May 19 |
| | Advertised, Engineering News, May 19. | | |
| May 28. | Brick building, | Paragon, Ind. | May 19 |
| May 30. | Factory building, etc., | Des Moines, Ia. | Apr. 14 |
| May 30. | Stone paving, | Toledo, O. | May 5 |
| May 30. | Brick building, | Frazee, Minn. | May 19 |
| May 30. | Sewers, | Toledo, O. | May 19 |
| May 30. | Improving water-works, | Media, Pa. | May 19 |
| | Advertised, Engineering News, May 19. | | |
| May 31. | Sidewalks, grading, etc., | East Liverpool, O. | May 19 |
| May 31. | Edge and flag-stones, | Haverhill, Mass. | May 19 |
| | Advertised, Engineering News, May 19. | | |
| May 31. | Iron bridge, | Dresden, Ont. | May 19 |
| May 31. | Sewers, | Binghamton, N. Y. | May 19 |
| May 31. | Cement sidewalks, | Berlin, Ont. | May 19 |
| May 31. | Electric light plant, | Malvern, Ark. | Apr. 7 |
| May 31. | Bridge bonds, ($60,000), | Hamilton, O. | May 12 |
| May 31. | Hydraulic lift lock, | Peterborough, Ont. | May 12 |
| June 1. | School building, | Keokuk, Ia. | May 12 |
| June 1. | Municipal building, | Stratford, Ont. | May 12 |
| June 1. | Cofferdam, masonry, etc., | Chicago, Ill. | Apr. 7 |
| June 1. | Electric railway, | Zurich, Switzerland | Mar. 10 |
| June 1. | By-pass, etc., | Chicago, Ill. | Apr. 21 |
| | Advertised, Eng. News, Apr. 21 and 28. | | |
| June 1. | Court house, | Monticello, Ky. | Apr. 21 |
| June 1. | Arc lights (50), | Columbia, Tenn. | Apr. 28 |
| June 1. | Stone flag and curb, | Battle Creek, Mich. | May 5 |
| June 1. | Brick paving, etc., | Dorranceton, Pa. | May 19 |
| June 1. | Road work, | St. Clairsville, O. | May 19 |
| June 1. | Engine house, | Columbus, O. | May 19 |
| June 2. | School building, | Pittsburg, Pa. | May 19 |
| June 2. | Electric lighting, | Natchez, Miss. | Apr. 21 |
| June 3. | Sewers, | Cleveland, O. | May 12 |
| June 3. | Stone pavements, | Lansdowne, Pa. | May 19 |
| June 3. | School building, | East Cleveland, O. | May 19 |
| June 4. | Oil well, | Bedford, Pa. | May 19 |
| June 4. | Steel bridge, | Valparaiso, Ind. | May 19 |
| June 4. | Brick paving, | Cambridge, O. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| June 4. | Pipe sewers, | Cambridge, O. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| June 6. | Electric franchise, | Gridley, Cal. | Apr. 21 |
| June 6. | Paving, | Toledo, O. | May 5 |
| June 6. | Steel highway bridge, | Pueblo, Colo. | May 12 |
| June 6. | Steel bridges (3), | Olivet, S. Dak. | May 19 |
| June 6. | L't and water bonds, | New Paynesville, Minn. | May 19 |
| June 6. | Electric franchise (50 yrs), | Bakersfield, Cal. | May 19 |
| June 6. | Lighting hospital, | Marysville, Cal. | May 19 |
| June 6. | Paving and grading, | Toledo, O. | May 19 |
| June 7. | Sewerage system, | Marion, Ind. | May 19 |
| | Advertised, Engineering News, May 19. | | |
| June 7. | Water bonds, | Summit, Miss. | May 19 |
| June 7. | Street work, | Kewaunee, Wis. | May 19 |
| June 7. | Macadamizing, etc., | Mount Vernon, N. Y. | May 19 |
| June 7. | Removing wreck, | Wilmington, Del. | May 12 |
| | Advertised, Eng. News, May 12 to June 2. | | |
| June 7. | County bridges (2), | Alma, Kan. | May 12 |
| June 7. | Steel bridge and plans, | Franklin, Ky. | May 12 |
| | Advertised, Engineering News, May 12. | | |
| June 7. | Arc lights (50), | Greenville, Miss. | Apr. 28 |
| June 8. | Bridge, | Salem, Ore. | May 19 |
| June 8. | County road, | Bozeman, Mont. | Apr. 21 |
| June 9. | Paving (30,000 sq.yds.), | Lima, O. | May 12 |
| June 9. | Water-works, | Sharpsville, Pa. | May 19 |
| | Advertised, Engineering News, May 19. | | |
| June 10. | Water pipe, etc., | Cleveland, O. | May 19 |
| June 11. | Road, | Huntington, W. Va. | May 19 |
| June 11. | Army building, etc., | Seattle, Wash. | May 19 |
| June 13. | Brick paving, curb, etc., | So. Bend, Ind. | May 19 |
| June 13. | Pipe sewer (2,750 ft.), | Lafayette, Ind. | May 19 |
| June 13. | Pipe sewers (2 streets), | South Bend, Ind. | May 19 |
| June 18. | Electric light plant, | Fitzgerald, Ga. | May 5 |
| June 18. | Water-works, etc., | Fitzgerald, Ga. | May 5 |
| June 24. | Electric plant, | Hawthorne, Australia | Apr. 14 |
| June 15. | Pump, gas engine, etc., | Oil City, Pa. | May 12 |
| | Advertised, Eng. News, May 12 to 26. | | |
| June 24. | Brick paving (10,000 sq.yds.), | Lima, O. | May 19 |
| June 25. | Railway bridge, | Chicago, Ill. | May 12 |
| | Advertised, Eng. News, May 12 and 19. | | |
| June 29. | River work, | Chicago, Ill. | May 12 |
| | Advertised, Eng. News, May 12 and 19. | | |
| July 1. | Water power, | Madras, India | Oct. 28 |
| July 1. | Plans for sewer system, | Formby, Eng. | Apr. 7 |
| July 1. | Plans for sewer system, | Cohoes, N. Y. | Apr. 28 |
| | Advertised, Eng. News, Apr. 28 and May 5. | | |
| July 2. | Water-works, | Summit, Miss. | May 19 |
| July 7. | Brick paving (20,000 sq.yds.), | Lima, O. | May 19 |
| July 7. | Iron or steel bridge, | Kingfisher, Okla. Ter. | May 19 |
| July 11. | Bridge, | Breckenridge, Minn. | May 19 |
| July 15. | Electric plant, | Lamar, Colo. | May 5 |
| Aug. 31. | Custom house, | Guayaquil, Ecuador | Apr. 21 |
| Sept. 12. | Hospital plans, | San Francisco, Cal. | Mar. 24 |
| Oct. 24. | Markets, etc., | Belem, Brazil | Apr. 28 |
| No date. | Brick paving, | Ithaca, N. Y. | May 5 |
| | Advertised, Engineering News, May 5 and 12. | | |

## RAILWAYS.

BALTIMORE & OHIO.—Five thousand tons of 85-lb. steel rail have been delivered to this company for use on the second and third divisions, and will be placed in the track immediately. There are still 16,000 tons of the original order to be delivered within the next three months. Considerable work is also being done on the Pittsburg division in the way of replacing old bridges with new and stronger structures. There are nine single-span, five two-span and one three-span steel bridges now being erected. W. T. Manning, Ch. Engr., Baltimore, Md.

BUFFALO, ROCHESTER & PITTSBURG.—Reports state that contracts have been awarded for the construction of 30 miles of railway, on the proposed extension of this line from Punxsutawney to New Castle, via Butler, Pa., a distance of 98 miles. Ten miles have been let to Thomas Collins & Co., Bellefonte, Pa.; ten to C. J. Ryan, 42 West 33d St.; and the remaining ten miles to the Pennsylvania Construction Co., A. E. Patton, Pres., of Curwensville, Pa. This last company is already at work on the first 12 miles of the extension, including a tunnel 2,300 ft. in length. Wm. E. Hoyt, Ch. Engr., Rochester, N. Y.

BURLINGTON & MISSOURI RIVER, IN NEBRASKA.—Press reports state that this company has decided to build a new branch line, which will connect Denver, Colo., and Alliance, Neb. I. S. P. Weeks, Ch. Engr., Lincoln, Neb.

CHIHUAHUA & PACIFIC.—H. J. Neeland and G. Webb, El Paso, Tex., were awarded a contract, May 9, for the construction of 100 miles of this proposed Mexican railway. They will commence work immediately with 1,000 men and 400 teams. The construction of the road is to be pushed with all haste from the City of Chihuahua to Guerrero, and thence to Tonolobampa, on the Pacific. Pres., Almeric H. Paget, 80 Broadway, New York; Vice-Pres., Enrique C. Creel, Chihuahua, Mexico; Ch. Engr., Edward S. Safford.

CHINA.—Press reports state that a contract was signed at Shanghai, May 13, by Sheng Ta-jen, Director of the Chinese Ry., and Jardine Matheson & Co., representing a British syndicate, for a loan to construct a railway connecting Nankin, Shanghai, Hang-Chou, the capital of the Province of Che-Kiang, on the Tsien-tang-Kiang River, and Ning-Po, in the Province of Che-Kiang, on the Ning-Po River. The Tsung-li-Yamen has confirmed the contract.

COLOMBIA.—Juan Bautista y Truco, of Bogota, Colombia, is said to have been granted a concession for the construction of a railway from the port of Girardot to the savanna of Bogota. Six miles must be completed by Jan. 5, 1899; the gage is to be 39.37 inches, and the rails are to weigh 44 lbs. to the meter. A bond of $50,000 has been given by the concessionary.

CROOKSTON TERMINAL.—This company was incorporated in Minnesota, May 11, with a capital stock of $25,000, to construct a terminal railway system at Duluth, Minn., in connection with the Northern Pacific Ry.

DULUTH & NORTHERN MINNESOTA.—This company has been incorporated in Minnesota, with a capital stock of $200,000, according to reports, to build a railway to open up the lumber district of St. Louis and Lake counties. It is said that Alger, Smith & Co., Lumbermen, of Detroit, Mich., are back of the project. Pres., Martin S. Smith, Detroit; Vice-President, John Millen, Black River, Mich.

ELGIN, JOLIET & EASTERN.—It is announced that this company has accepted the ordinance of the Waukegan city council, granting them a right of way to the site of the proposed harbor slip and docks, and that the contract for the excavation and docking of an 800-ft. slip has been let to the Crouch Construction Co., First National Bank Bldg., Chicago, Ill. The work is to be completed by Sept. 1.

ESCANABA RIVER.—This railway company was organized at Marinette, Wis., May 10, with a capital stock of $200,000. It is proposed to construct a logging road from the mouth of the Escanaba River to Republic, Minn., a distance of 60 miles. It is said that about 25 miles of track would be laid this year. The officers are: Pres., Isaac Stephenson; Vice-Pres., J. A. Van Cleve, both of Marinette, Wis.; Gen. Mgr., J. W. Wells, Menominee, Wis.

GAYLORD & RUBY VALLEY.—Cook & Waldron, Helena, Mont., have almost completed this proposed branch of the Northern Pacific from Whitehall to Twin Bridges, Mont., a distance of about 20 miles, according to reports.

GEORGIA PINE.—Arthur Pew, Ch. Engr., Damascus, Ga., informs us that this line is at present completed from West Bainbridge to Plattville, Ga., 31 miles. It is also reported that work will soon be commenced on the extension to Dawson, a distance of 38 miles. R. B. Coleman, Gen. Mgr., Bainbridge, Ga.

INTEROCEANIC OF MEXICO.—W. T. Ingram, Engr. City of Mexico, Mexico, informs us that a loop line from Cuantla to Chietla, a distance of 65¾ kilometers (41.8 miles) is now being surveyed, and construction may commence in October or November. Small changes in alinement are being considered, and new terminals are projected at Mexico and Vera Cruz; also a new passenger station and warehouses at Vera Cruz. Construction is expected to commence in a few weeks on a new iron pier at Vera Cruz, the material for which is coming from England.

KUSHEQUA.—Elisha K. Kane, Pres., Kushequa, Pa., writes us that seven miles have been surveyed and ten miles of the right of way obtained for this proposed steam railway from Kushequa to Ormsby and Farmers Valley, near Smethport, Pa., a distance of 15 miles. The incorporation of the company, on May 9, was noted in our last issue. One-half of the capital for construction has been secured, and it is expected to let contracts this summer for from one to seven miles of work. Second-hand 60-lb. relaying rail, delivered at Kushequa, is wanted. G. H. Lyon, Ch. Engr., Mount Jewett, Pa.

MOBILE & OHIO.—This company has completed track-laying on the extension from Columbus, Miss., to Montgomery, Ala., a distance of 167 miles, and it is expected to have it ready for operation early in June. This completes one of the most important pieces of work that has been under way during the past two years. The project is an old one, and was inaugurated by the Montgomery, Tuscaloosa & Memphis R. R. Co., which a number of years ago practically completed the grade from Montgomery to Tuscaloosa, 106 miles, but all efforts to secure money to complete the road were unsuccessful until the Mobile & Ohio took hold of the work, and made an issue of $4,000,000 in bonds for construction purposes. The new line penetrates the rich coal and iron fields of Alabama, and will probably secure a good traffic from the start.

MOBILE, JACSKON & KANSAS CITY.—H. H. Lane, Gen. Supt., Mobile, Ala., informs us that this line is completed from Mobile to the Pascagoula River, and that operation to this point was to have begun on May 15. It is expected to extend further to Jackson, Miss., 183 miles distant from Mobile. Pres., F. B. Merrill; Ch. Engr., R. F. Ezzell, both of Mobile.

MONTEREY & FRESNO.—H. A. Greene, Vice-Pres. and Gen. Mgr., Monterey, Cal., informs us that 10 miles have been graded on this proposed line of railway to be built from Monterey to Fresno and easterly, via Salinas, San Juan and Hollister, Cal. An English company, of which J. W. H. James is temporary manager, has taken up the project and expects to resume work by next August. Pres., A. W. Jones; Ch. Engr., P. P. Dandridge, both of Monterey.

MOORE COUNTY & WESTERN.—W. B. Elkhout, Aberdeen, Miss., informs us that this company has purchased the Moore County R. R., and that it is now being extended. A total extension of 70 miles is contemplated, from Southern Pines to Concord, N. C. Jas. H. Waite, Pres., Boston, Mass.; H. L. Thurston, Ch. Engr., Southern Pines, N. C.

PITTSBURG, CONNELLSVILLE & WHEELING.—Reports state that 19 miles of this proposed railway have been surveyed, and that grading will probably commence in June. The proposed route is from Uniontown, Pa., to Wheeling, W. Va., via Millsboro, Clarksville, Jefferson and Waynesburg, Pa., and Moundsville and Benwood, W. Va., a total distance of 80 miles. Pres., Alexander P. Funk, 11 Broadway, New York.

ST. LOUIS, MANSFIELD & AVA JUNCTION.—It is announced that a new survey is being made for this proposed line from Mansfield to Ava, Mo. F. O. Hadley, Springfield, O., is said to be interested.

SKAGUAY & LAKE BENNETT.—Press reports state that another attempt is being made by E. C. Hawkins, of Denver, Colo., with a corps of engineers, to construct this proposed railway across the White Pass.

SOUTH PARK & ROYALTON.—This company was incorporated in Ohio, May 9, with a capital stock of $10,000; headquarters at Cleveland, O. It is proposed to build a steam railway from a point on the Cleveland Terminal line, 1,000 ft. south of South Park, in Independence township, to Royalton Center, in Royalton township. The incorporators are: Virgil P. Kline, F. H. Goff, C. H. Gale, S. H. Tolles, and T. H. Bushnell, of Cleveland.

## STREET AND ELECTRIC RAILWAYS.

LEWISTON, ME.—The new equipment for the Lewiston, Brunswick & Bath R. R. will be supplied by the Westinghouse Electric & Mfg. Co., Pittsburg, Pa. It is reported that the generators, which are to supply both direct and alternating currents simultaneously, are to be located at Brunswick, Me., the initial installment to be 1,000 HP. The direct current will be used in and about Brunswick, and the alternating current will be raised to 10,000 volts and transmitted to Bath and Lisbon Falls, where it will be reduced and changed to direct current by rotary transformers. It is expected that the contracts for construction will soon be let in four sections. John A. Jones, Ch. Engr., Lewiston.

EAST BRIDGEWATER, MASS.—The directors of the proposed electric road between Whitman and Plymouth have filed an application for a hearing with the selectmen of this town, asking for a location on Washington St., from the Whitman to the Hanson town lines. The hearing will be held May 24. Similar applications are expected to be filed later with the selectmen of Hanson, Pembroke, Halifax, Plympton and Kingston. The road will be pushed to completion as soon as possible.

EAST BROOKFIELD, MASS.—M. M. Wheeler, Ch. Engr. Warren, Brookfield & Spencer St. Ry., 340 Main St., Worcester, Mass., informs us that all of the right of way has been obtained for the proposed extension of this electric railway from East Brookfield to North Brookfield, a distance of four miles. The Worcester Construction Co., which holds the contract, has about completed the grading, and has laid two miles of 56-lb. T-rails, Cambria pattern. Pres., N. Sumner Myrick, 92 State St., Boston.

MIDDLETOWN, CONN.—It is reported that the Middletown St. Ry. Co. has made a 5-year agreement with the Middletown Electric Light Co., whereby the latter company will furnish the electric power for the Middletown and Portsmouth lines.

BUFFALO, N. Y.—We are informed that the contract for the construction of the Buffalo, Hamburg & Aurora Ry. has been awarded to Crage & Tench, 61 Terrace, Buffalo. The power house and Hamburg division will be built first, and the grading of the roadbed was to commence this next week. The power house will cost from $75,000 to $80,000. U. L. Upson, Secy. and Gen. Mgr., 1095 Ellicott Square.

MALONE, N. Y.—It is reported that the Franklin County Ry. and the Malone Electric St. Ry. Co. will build an electric street railway along several of the principal streets of the village and thence to Lake Titus and Lake Duane, a distance of nine miles.

FALLSBURG, N. Y.—B. Van Steenbergh, Pres. Fallsburg & Monticello R. R. Co., 53 Broadway, New York, informs us that the surveys have been made, the right of way obtained and all but $25,000 of the capital for construction secured for this proposed line from Fallsburg to Monticello, a distance of six miles. Contracts have been partly let and it is expected to begin work on May 23, and to complete the same by July 1. C. S. Smith, Ch. Engr., 53 Broadway, New York.

MOUNT VERNON, N. Y.—The Westchester Electric Ry. Co. has applied to the common council for permission to extend its present line in this city. This action on the part of the company was probably due to the application of the New York, Westchester & Connecticut Traction Co., as noted in our last issue.

ATLANTIC CITY, N. J.—The promotors of the proposed trolley line from Philadelphia to Atlantic City met in the latter place, May 11, and formed a temporary organization. The line as surveyed will be 57 miles in length, and will follow the Camden and Atlantic road for a considerable part of the distance. It will start from Haddon Ave., Camden, and run via Hammonton and Absecon to a station on Atlantic Ave., near Maryland Ave., in this city. Pres., J. J. Patterson, Philadelphia, Pa.; Secy., A. C. Welhouse, Lancaster, Pa.; others interested are R. D. Wells and Charles Russell, of Philadelphia; Smith Conover, Samuel E. Reilly, F. A. Souder and Captain E. D. French, of Atlantic City.

PITTSBURG, PA.—The Monongahela St. Ry. Co. was granted a franchise, May 9, for the right of way between Brown's bridge on the Monongahela River and the Schenley Park bridge over Junction Hollow, traversing Hazelwood Ave., Murray Ave., Forbes St., Woodlawn Ave. and Joncaire St. This company is the successor of the Homestead & Highlands St. Ry. Co., and was incorporated April 13, with a capital stock of $30,000, by Pres. L. G. Woods, of Pittsburg; W. S. Mitchell, Allegheny, Pa., and others.

READING, PA.—J. G. Leinbach, Pres. Mount Penn Gravity R. R. Co., informs us that this line has been equipped with electricity, so that since May 2 both steam and trolley power have been used. This is a single-track railway up Mount Penn, and eight miles in length.

FROSTBURG, MD.—The council has granted a franchise for the construction of an electric railway through this town from Westernport.

LONACONING, MD.—The Lonaconing & Westernport Passenger Electric Ry. Co. was granted a franchise, May 7, for the right of way on Main St. in this town.

WASHINGTON, D. C.—The House of Representatives has passed a bill authorizing and directing the Metropolitan St. Ry. Co. to extend its tracks, within one year, from the present terminus at 18th St. and Columbia Road east to Erie St., thence along Erie to 17th St., N. W., thence north along 17th St. to Park St.——The House Committee has favorably reported a bill incorporating the East Washington Heights Traction Co., to construct a line from the western extremity of the Pennsylvania Ave. bridge over the Anacostia River eastward to Good Hope and the district line. Archibald M. Bliss, of Washington, and Albert W. Fletcher, of New York, are among the incorporators.

DAYTON, O.—Reports state that the board of city affairs has granted a franchise to the Dayton, Springfield & Urbana Electric Ry. Co. to build in this city. The company was incorporated in Ohio, May 13, with a capital stock of $1,000,000. Pres., Abe Applevard, Boston, Mass.; Vice-Pres., J. S. Harshman; Secy., John Webb; Gen. Mgr., F. Colburn, Louisville, Ky.; Supt., W. H. Hanford.

HAMILTON, O.—The commissioners of Hamilton county have granted a 25-year franchise to the Cincinnati & Hamilton Electric St. Ry. Co. to construct and operate a line from Cincinnati to Mount Healthy and thence to Hamilton. The contract for construction is said to have been awarded to the Christy Bros., of Cleveland, O., who will build the road from Hamilton to College Point, where a junction is to be made with the Cincinnati Consolidated Ry.

WAYNE, MICH.—The council has granted a franchise to the Detroit, Plymouth & Northville Ry. Co.; and it is proposed to build a line through Newburg to Plymouth and Northville.

OMAHA, NEB.—The Omaha & Council Bluffs Ry. & Bridge Co. let the contract, May 11, for the erection of a new 3-story brick building, 110 × 60 ft., to be used as a power house for the company's line of electric railway; estimated cost, $20,000. The contract for the brick work was awarded to Wickham Bros., and that for the steel work to C. E. H. Campbell.

SONORA, CAL.—T. S. Bullock has petitioned the council for a franchise to construct and maintain an electric line on Washington St.

LOS ANGELES, CAL.—A. B. Patton has been granted a franchise to construct an electric railway from Los Angeles to Whittier.——It is reported that the Terminal Ry. Co. of this city is contemplating the operation of its Glendale branch by electricity.

HAMILTON, ONT.—Bids are asked until May 23 for building the Birch Ave. extension of the Hamilton Radial Electric Ry. Secy., Stewart E. Malloch.

MOSCOW, RUSSIA.—Press reports state that Siemens & Halske Electric Co., Chicago, Ill., has recently been awarded a contract to construct six miles of electric railway in this city, and also to take charge of the municipal lighting.

MAINZ, GERMANY.—Consular reports state that it is proposed to change the motive power of the local tramways from horse to electric power; the storage system to be used on one system and the overhead trolley on another. The trolley road is also to be extended to one of the suburbs. The South German Ry. Co. also proposes to establish a trolley line connecting Mainz and Wiesbaden, and one from Mainz to Eltville. The estimated cost, including the erecting and equipping of a large power station for supplying the new lines, is placed at $400,000.

KOBE, JAPAN.—A consular report from Kobe states that there are three electric railway projects in this consular district. One company, capitalized at $240,000, proposes to construct 15 miles of railway from Kobe to Amagasaki. Another company expects to build from Kobe to Armina, 15 miles, and its capital stock is $149,900. The time for beginning work on these lines had not been fixed at time of report. The third project is to build from Amagasaki to Osaka, a distance of five miles.

## ELECTRIC LIGHT AND POWER.

WESTBROOK, ME.—The council has been asked to grant a franchise for wiring and supplying this town with lights. The power will be secured from the Lisk Mills on the Presumpscot River at Sacarappa. It is said that Boston parties are interested.

CAMBRIDGE, MASS.—L. S. Gould, Chn. Comrs., East Cambridge, received the following bids May 7 for a plant at the house of correction:

| | |
|---|---|
| Evans, Almirall & Co., New York | $29,029 |
| Albert B. Franklin, Boston | 37,466 |
| Ingalls & Kendricken, Boston | 36,982 |
| Lynch & Woodward, Boston | 35,970 |
| G. M. Parks, Fitchburg, Mass. | 35,500 |
| A. H. Sanborn, Boston | 34,985 |
| Braman, Dow & Co., Boston | 35,161 |
| Walworth Construction Co., Boston | 33,714 |
| H. R. Barker Mfg. Co., Lowell, Mass. | 45,700 |
| Middlesex Machine Co., Lowell, Mass. | 43,329 |

LEE, MASS.—It is stated that the Lee Electric Co. has purchased the Garfield mill and will begin soon the construction of an electric plant there. Supt., W. E. Usher.

MELROSE, MASS.—We are informed that the town has appointed a committee to investigate in regard to the advisability of the town owning and operating its own lighting plant. Electricity is now used, but other methods of lighting are being investigated. It is too early to ask for bids for a plant, as the local engineers can give the necessary estimates so far as the committee's investigations will require them. Chas. M. Cox, Chn. Com., 713 Chamber of Commerce Bldg., Boston.

NEW YORK, N. Y.—Bids are asked until May 31 for furnishing electric light for the streets, etc., for 1898 in the borough of Brooklyn. H. S. Kearney, Comr. Pub. Bldgs., 346 Broadway, Manhattan.

COLLINGSWOOD, N. J.—The Suburban Improvement Co. has been awarded the contract for furnishing this place with electric lights.

ELMER, N. J.—The question of building a plant is reported as being considered.

NEW BRUNSWICK, N. J.—Bids are asked until May 26 for lighting the streets of the city for two years from June 1. H. C. Housell, Chn. Com.

WESTVILLE, N. J.—The question of establishing a plant is being considered. It is also said that the Pitman Grove, Glassboro & Clayton Electric Light Co. has applied for a franchise.

CORAOPOLIS, PA.—Bids are asked until May 23 for furnishing and setting an 80-light 2,000-c. p. arc dynamo, switchboard, etc. W. J. Nelson, Pres. Council; J. H. Crawford, Chn. Com.

LANSDALE, PA.—It is stated that the Lansdale Electric Light Co. has sold to the borough its entire plant for $4,000. The borough will now purchase a lot and erect a plant to supply the town with commercial and street lights at cost. At the election last February the voters gave their consent for the borough authorities to expend $20,000 in the installation of a plant.

ROCKLEDGE, PA.—Morris P. Wells & Co., 13th and Walnut Sts., Philadelphia, are taking preliminary bids on plans for an amusement park at Rockledge for the Pennsylvania General Improvement Co., Lippincott Bldg., Philadelphia. Among the buildings to be erected will be an electric plant, engine and boiler-house, casino, pavilions, track, etc. The electric plant will be two stories, brick, 60 × 100 ft., with power equipment.

PITTSBURG, PA.—The power plant of the Carnegie Steel Co.'s Edgar-Thomson Mill is to be enlarged by the addition of apparatus from the Westinghouse Electric & Mfg. Co., Pittsburg. The new generator is to be the Westinghouse standard 800-K-W., 250-volt, 83-R. P. M. engine type machine. It will be direct-connected to a vertical Allis-Corliss engine and will operate in multiple with two 400-K-W. Westinghouse generators already installed. The present switchboard is to be enlarged by the addition of a new generator panel, to provide for the operation of the new machinery.

EMMITSBURG, MD.—R. A. Ragle, Frederick, Md., is preparing plans for raising a dam at St. Josephs, near this place. It is stated that a light and power plant will be built.

BRISTOL, TENN.—T. J. Burros, Recdr., writes us that the two lighting companies of this place, the Bristol Gas & Electric Co. and the Consumers' Electric Co., are about to be consolidated. J. H. Wood and W. Hunt may be addressed.

COLUMBUS, O.—H. M. Lyman, Supt. of Lighting, informs us that the following bids were received May 3 for furnishing machinery for a plant: 250-HP. engine and condenser, Phoenix Iron Works Co., Meadville, Pa., $4,100; Buckeye Engine Co., Salem, O., $3,400, $3,500 and $3,700 (accepted); two 110-HP. water-wheels, Pelton Water-Wheel Co., New York, $2,800; American Impulse Wheel Co., New York, $1,500; arc lamps, 400, Adams-Bagnall Electric Co., $17 each; material and labor for pole line for 884 lights, Chase Construction Co., Detroit, $22,563; Ambos Construction & Electric Co., Cleveland, $20,873 (accepted); A. S. Schulman, Cincinnati, $20,907; 1,500 assorted poles, Valentine Clark Co., Chicago, $6,440.

| Bidder. | Boilers, 800 HP., shaking grates and settings. |
|---|---|
| Oil City Boiler Works, Oil City, Pa. | $3,910 |
| Campbell & Baller Co., Baltimore, Md. | 4,744 |
| Heine Safety Boiler Co., St. Louis, Mo. | 4,175 |
| Aultman-Taylor Machine Co., Mansfield, O. | 4,579 |
| Aultman-Taylor Machine Co., Mansfield | 5,027 |
| Babcock & Wilcox Co., New York | 4,000 |
| Phoenix Iron Works Co., Meadville, Pa. (accepted) | 3,780 |
| Brownell & Co., Dayton, O. | 4,200 |
| Edge Moor Iron Co., Chicago | 3,995 |

HURON, O.—It is stated that bids for constructing the proposed plant will be opened about June 20. It will have a 60-arc light dynamo and 1,000-light machine, etc. Engr., B. J. Ashley, Old Colony Bldg., Chicago, Ill.

MINSTER, O.—Bids for constructing the proposed plant will be asked for in about three weeks. Engr., G. L. McGibben, Van Wert, O.

SYCAMORE, O.—We are informed that bids for building the proposed plant and water-works will be called for in about three weeks; estimated cost, $20,000. Des. Engr., G. L. McKibben, Van Wert, O.

LANSING, MICH.—The commissioners are securing information in regard to carbons for the arc lights. The city is said to use about 8,000 carbons a month. Chas. F. Hammond, Pres.; Daniel Barrington, Secy.; E. A. Edgerton, Supt.

CHICAGO, ILL.—Bids are asked until May 24 for furnishing 164 cut-out switches, 164 insulators and 218 arc lamps for use in the parks. E. G. Schubert, Secy. West Chicago Park Comrs., Union Park.——Mayor Harrison has appointed a committee to investigate the question of building a plant.——The plant of the Cicero Electric Light & Power Co. was destroyed by fire May 7, causing a reported loss of about $50,000.

HARVARD, ILL.—It is stated that the plant recently purchased by F. L. Smith, of De Pere, Wis., was destroyed by fire May 10.

**ELKHORN, WIS.—John R. Allen is preparing plans for** the proposed plant to be owned by this village. H. C. Morris, Mayor.

**MILWAUKEE, WIS.—The commissioners of public works and the library trustees have asked for bids for a plant for the library building; cost, about $13,000.**

MORA, MINN.—We are informed that the plant for this place to be owned by J. C. Morrison is now being built. Mr. Morrison has partly contracted with the Northwestern Engineering Co., St. Paul, and partly with the Russell Engine Works. He is still open for bids for arc lamps and street wire. **The plant is to have capacity for 10** 2,000-c. p. arc and 500 incandescent lights.

NEW PAYNESVILLE, MINN.—Bids are asked until June 6 for the purchase of $8,000 of water and light bonds for the proposed improvements. M. S. Elliott, Recdr.

**DENVER, COLO.—O. E. Miller, representing the Universal Electric Co., 180 South 40th St., Philadelphia, Pa., is reported by local papers to have submitted a plan for furnishing their city with cheaper arc lights.**

BAKERSFIELD, CAL.—Bids are asked until June 6 for the purchase of a 50-year electric franchise in Kern county; surety, $2,000. F. W. Craig, Clk.

FULLERTON, CAL.—The town trustees of Anaheim are considering the question of extending the light line to this place.

LOS ANGELES, CAL.—Press reports state as follows: Complications which caused the Southern California Power Co. to stop work on its tunnel in Santa Ana Canyon have been settled and work resumed. H. H. Sinclair, who recently returned from the East, has disposed of $400,000 worth of bonds, and work of completing the plant will be begun. The tunnel and flume in Santa Ana Canyon have to be completed and power house erected. That done there will only remain the electrical equipment to be installed and pole line to Los Angeles. The plant will transmit electrical energy to extent of about 4,000 HP., all of which has been contracted. Redlands capitalists are interested in it, as they are also in the Lytle Creek & Power Co. It has been organized to use waters of Lytle Creek, to transmit 1,500 HP. of electrical energy, the pole line of the Southern California Power Co. being used, if necessary.

MARYSVILLE, CAL.—Bids are asked by the clerk of the board of supervisors until June 6 for lighting the county hospital with about 55 16-c. p. incandescent lights.

NEW COMPANIES.—Pacific Lighting Co., San Francisco, Cal.; $50,000, all of which is paid in: J. M. Livingston, C. O. G. Miller, H. M. A. Miller, W. B. Cline, Joseph Hutchinson.

Chemical Light & Power Co., New York, N. Y.; $100,000, with $1,000 paid in: Maurice Kohn, E. S. Levi, Wm. C. Wilson, N. Wolfsbruck, New York.

## BRIDGES.

**MANCHESTER, N. H.—A bridge to cost between $25,000 and $30,000 will be constructed over the Piscataquog River at Kelley's Falls on the Kelley St. extension. William C. Clarke, Mayor.**

ADAMS, MASS.—We are informed that the proposed bridge at State St., across the Hoosick River, will probably not be built this year. Chas. F. Stowell, Des. Engr., 51 State St., Albany; John H. Emigh, Comr. Pub. Wks., North Adams.

**BOSTON, MASS.—Bids are asked until May 25 for constructing abutments at A St. William Jackson, Cy. Engr.**

LAWRENCE, MASS.—Councilman Frost has urged the construction of a new bridge to replace the old structure at Jackson St. Mayor Eaton may be addressed.

**WESTFIELD, MASS.—The county commissioners will give a hearing June 8 in regard to the construction of a new bridge on Main St. to replace the present structure over the south branch of the Westfield River.**

TIVERTON, R. I.—The New York, New Haven & Hartford R. R. Co. is obliged to construct a 100-ft. draw span in the bridge across the Seaconnet River. F. S. Curtis, Ch. Engr., New Haven, Conn.

**BUFFALO, N. Y.—The following bids were received by the grade crossings commission for the superstructure of the viaduct at Seneca and Hamburg Sts. Edward Guthrie, Ch. Engr.: Pocomoor Bridge Works, $217,164; Elmira Bridge Co., $230,768; Penn Bridge Co., $234,050; Dwyer & Huntington, $245,906; Buffalo Bridge & Iron Works, $246,463; Riter-Conley Co., $247,050.**

**SYRACUSE, N. Y.—Bids are asked until May 23 for constructing a steel girder bridge over Onondaga Creek at West Water St.; surety, $500. M. Z. Haven, Cy. Clk.; R. R. Stuart, Cy. Engr.**

**KEY PORT, N. J.—Reports state that a bridge to cost about $18,000 will be constructed by the county commissioners.**

NEWARK, N. J.—Bids are asked until May 20 for constructing two masonry bridges in Branch Brook Park, requiring about 1,250 cu. yds. of excavation, and 830 cu. yds. of masonry. A. Church, Secy. Essex County Park Comm.

JERSEY CITY, N. J.—The following bids were received May 5 by the board of chosen freeholders, for a plate-girder bridge over the Morris Canal at Pacific Ave.: (1) provides for passage of trolley cars during construction; (2) does not provide for passage of trolley cars during construction:

| | 1. | 2. |
|---|---|---|
| W. G. Triest, New York | $23,480 | $22,980 |
| M. J. Curley | 23,900 | 24,400 |
| Frank Pidgeon | 26,390 | 25,640 |
| Thomas Coagan | 28,450 | 28,350 |
| Sanford & Stillman Co. | 28,589 | 28,489 |
| New Jersey Steel & Iron Co. | 28,900 | 28,600 |
| Fagan Iron Works | 30,400 | 29,400 |

ALLEGHENY, PA.—We are informed that the contract for building the superstructure of a steel bridge 400 ft. long by 38 ft. wide on Davis Ave., from Rose Ave. to Riverside Park, has been let to Gustave Kaufman, Hamilton Bldg., Pittsburg, at $25,754. This is a cantilever bridge. The floor is to be of asphaltum.

CENTRAL, PA.—Reports state that Bloomsburg & Sullivan R. R. Co.'s bridge at this place has been destroyed by fire. D. W. Campbell, Supt. and Ch. Engr., Bloomsburg.

DARBY, PA.—Reports state that the county commissioners will repair the bridge over Cobb's Creek in Upper Darby.

**DAUPHIN, PA.—The Dauphin Bridge & Construction Co. has been incorporated with a capital stock of $50,000, to operate bridge works in this place; the directors are H. H. Colby, C. H. Colby, Philadelphia, and Benjamin Thompson, Dauphin.**

DOVER, PA.—The Pittsburg Bridge Co., Pittsburg, Pa., **has been awarded a contract, at $8,998, to construct a county bridge over the Choptank River.**

PITTSBURG, PA.—It is reported that the Pittsburg, McKeesport & Youghiogheny R. R. Co. has had plans prepared for the construction of a connecting bridge near South 13th St. to be 1,100 ft. long; estimated cost, $100,000.

ANNAPOLIS, MD.—Bids are asked until May 24 for constructing county bridges as follows: Iron bridge of 40-ft. span over Severn Run, iron bridge of 100-ft. span over the Patuxent River, and a wooden bridge over Long Cove. A. K. Starlings, Clk. County Comrs.

JACKSON, MISS.—The question of building a new iron bridge over the creek at Capitol St. is being considered by the council; estimated cost, $10,000. W. G. Kirkpatrick, Des. Engr., Canton, Miss.

ENGLISH, KY.—Bids are asked until May 21 for the construction of an iron bridge 103 ft. long and 12 ft. wide on stone foundation, with a capacity of 1,600 lbs. per sq. ft.; estimated cost, $2,000. Address J. J. Orr, Carrollton.

HAMILTON, O.—L. A. Dillon, Cy. Engr., has submitted two plans to the council for a viaduct from Water to 4th St., one to be of brick, estimated cost $17,700, and the other of concrete, estimated cost $23,000. Councilman Hemp, Chn. Com.

**NEWARK, O.—The Massillon Bridge Co., Massillon, O., has been awarded a contract, at $14,500, to construct a county bridge 151 ft. long and 60 ft. wide of steel, to have a capacity of 125 lbs. per sq. ft.**

MONTICELLO, IND.—The Wabash Bridge & Iron Works, Wabash, was awarded a contract May 5 to construct a truss bridge 271 ft. long and 32 ft. wide; estimated cost, $8,000.

PERRYSVILLE, IND.—William Koehler, Jr., Recdr., writes us that it is proposed to construct a steel bridge about 700 ft. long; estimated cost, $25,000. Plans have not been prepared and the contract will not be let for some time. Wm. P. Bell, County Audr., Newport.

VALPARAISO, IND.—Bids are asked until June 4 for constructing a steel bridge with stone abutments. James S. Fulton, Chn. County Comrs.

SAND BEACH, MICH.—Bids are asked until May 21 for constructing a stone arch bridge. Warren H. Wade, Town Clk.

BRECKENRIDGE, MINN.—Bids are asked until July 11 for constructing a bridge across Otter Tail River, according to reports. Z. T. Shepherd, County Audr.

OLIVET, S. DAK.—Bids are asked until June 6 for constructing three steel bridges, according to reports. J. S. Mueller, County Audr.

WEST POINT, NEB.—Bids are asked until May 24 for constructing a 200-ft. span steel bridge on tubular piers, across the Elkhorn River. D. W. Burke, Chn. Com.

MANHATTAN, KAN.—Bids are asked until May 24 for constructing two bridges of 240 and 260-ft. spans, according to reports.

KINGFISHER, OKLA.—Bids are asked by the county commissioners until July 7 for constructing an iron or steel bridge, according to reports.

PORTLAND, ORE.—A contract has been awarded the Pacific Bridge Co., San Francisco, Cal., at $14,275, for repairing the superstructure of the Morrison St. bridge, according to reports.

SALEM, ORE.—Bids are asked by the county commissioners until June 8 for the construction of a bridge across Abiqua Creek, near Silverton.

WOODLAND, CAL.—P. N. Ashley informs us that there is no prospect of the proposed bridge over Putah Creek being built this year as stated in our issue of April 21.

**DRESDEN, ONT.—Bids are asked until May 31 for constructing an iron bridge 125 ft. long and 6 ft. wide over the Sydenham River. Address M. S. Blackburn, Box 41.**

## BUILDINGS.

BALLARDVALE, MASS.—A large 3-story stone building at this place, used as a wool warehouse by Jameson Lovejoy, of Boston, was burned, May 11, together with connecting buildings, causing a reported loss of $250,000.

PROVIDENCE, R. I.—Bids are asked from local contractors, until May 25, for the construction of a 4-room primary school building at Preston and Ives Sts. Burnah E. Perkins, Chn. Com. on City Property; Albert T. Mansfield, Supt. Pub. Bldgs.

NEW HAVEN, CONN.—We are informed that the contract for the iron work on the Mendel & Freedman Building has been awarded to the Boston Bridge Works, Boston, Mass. The contract for the cast-iron columns will be sublet by the company later.

BATAVIA, N. Y.—John Lennon, of Buffalo, has been awarded the contract for erecting several new buildings for the Johnston Harvester Co., at Batavia. There will be four 3-story brick buildings with a combined length of 800 ft., and the contract price is between $50,000 and $60,000.

BUFFALO, N. Y.—A fire in this city, May 15, partially destroyed the Tifft Block, on Washington St., occupied by Chas. F. Doll, Geo. M. Hausaner and John C. Lautz & Bro. Reported loss, $100,000, of which $15,200 is on the building. ——Plans have been prepared for a 4-story brick hotel building to be built on Franklin St., near Chippewa, for F. H. Everhart; estimated cost, $45,000. Archs., Lansing & Beierl, 371 Pearl St.——John G. Balsam, 252 Michigan St., expects to build a brick apartment building on Franklin St., near Allen, to cost $30,000.

**CANTON, N. Y.—A. A. Paquette, Ogdensburg, has been awarded the contract for the construction of the new jail building, to cost about $12,000. Archs., Williams & Johnston, Ogdensburg, N. Y.**

COLLINS, N. Y.—We are informed that plans have been prepared, and that bids will be asked in about two weeks for several buildings to be built for the Collins State Hospital at a cost of about $100,000. Arch., Aug. C. Esenwein, 707 Mooney Bldg., Buffalo.

NEW YORK, N. Y.—Bids are asked by the board of education at 585 Broadway, until May 24, for making alterations, repairs, etc., at the public schools Nos. 77, 72, 96, 114, 116, 117, 134, 135, 136, and 162.——Plans have been filed by George Schreiner, 104 West 121st St., for two 5-story brick flat buildings, on 22d St., near 1st Ave., to cost, $52,000. Arch., John Hauser, 1441 3d Ave.; by the New York Telephone Co., 15 Dey St., for two 3-story brick telephone exchange buildings, at 112 West 89th st. and 173 East 79th St., to cost $50,000. Arch., C. L. W. Eidlitz, 1,123 Broadway; by the Riverside Building Co., 459 Boulevard, for eight 6-story brick dwellings at 80th St. and Riverside Drive, to cost $266,000. Arch., Clarence True, 459 Boulevard; by James Livingston, 8 West 91st St., for six 4-story brick dwellings, on 102d St., near West End Ave., to cost $120,000. Archs., Neville & Bagge, 217 West 125th St.; by Solomon Loeb, 27 Pine St., for a 4-story brick office building, at 24 Ave. and 21st St., to cost $150,000. Archs., De Lemos & Cordes, Fulton Bldg.; by William Uockmann, 126 West 137th St., for four 4-story brick flat buildings, at 173d St. and Bathgate Ave., to cost $70,000. Arch., Charles Stegmayer; by T. J. McGuire, 968 St Nicholas Ave., for a 7-story brick flat and store building on the Boulevard, near 91st St., to cost $110,000. Arch., H. T. Howell, 748 East 138th St.; by John Askey, 229 Newtown Ave., Long Island City, for two 5-story brick flat buildings on 112th St., near 7th Ave., to cost $60,000. Arch., L. F. J. Weiher, 125th St. and Park Ave.; by August Jacob, 527 West 149th St., for five 4-story brick flat buildings at Gouverneur Pl. and Vanderbilt Ave., to cost $88,000. Arch., John Hauser, 1441 3d Ave.; by Hennie Liebeskind, 163 East 118th St., for two 5-story brick flat and store buildings on 119th St., near Park Ave., to cost $50,000. Arch., G. F. Pelham, 503 5th Ave.; by Richard Williamson, Newport, R. I., for a 9-story brick store and loft building, at 169 Henry St., to cost $90,000. Arch., Robert Maynicke, 725 Broadway.

NEW YORK, N. Y.—Bids are asked by the Manhattan State Hospital, 1 Madison Ave., New York, until May 24, for installing and finishing the water supply, plumbing and drainage works of a building for a central power and heating plant at Ward's Island. Pres., Henry E. Howland; Arch., I. G. Perry, Albany, N. Y.

SYRACUSE, N. Y.—Leamy & Gregg were awarded the contract, May 12, for the masonry work on the new block to be built on South Salina St., for Hiram D. Mason, at a cost of about $40,000; the contract for the carpentry work went to Frank Scullin. Arch., Archimedes Russell, The Bastable.

EAST ORANGE, N. J.—S. P. Johnson has been awarded the carpentry contract at $19,045, and B. L. Tobin the masonry contract at $17,995, for the proposed new school building to be erected on Central Ave. Archs., Boring & Tilton, 32 Broadway.

NEW BRUNSWICK, N. J.—It is reported that a new school building will soon be erected at French and Louis Sts., to cost about $37,000.

**ORANGE, N. J.—Bids are asked by this city until May 23, for the purchase of $60,000 of 4½% school bonds. Daniel A. Dugan, Cy. Clk.**

MOUNT OLIVER, PA.—Bids are asked until May 26, for the erection of a new school building at Carbon and Ormsby Sts. Secy., Paul Fallert, 1207 Carson St., S. S.; Archs., Ed. J. Carlisle & Co., 700 Lewis Bldg., both of Pittsburg, Pa.

PHILADELPHIA, PA.—Bids are asked until May 23, according to reports, for the installation of boilers, steam heating and ventilating system, etc., for the prison at 10th and Reed Sts. Supt., R. C. Motherwell, Jr.——A fire in this city, May 11, destroyed the 6-story building at 619 Market St., occupied by McCadden Bros., manufacturers of toys and fireworks, causing a loss of about $250,000.

PITTSBURG, PA.—Bids are asked until May 21, for additions and alterations to the Greenfield Building, 234 Ward. Peter Gillespie, Supt. Bldg. Com.——W. B. Bennett, Rural Ave., has been awarded the contract for the erection of a marble bank building for the City Deposit Bank, at Penn and Center St.; estimated cost, $75,000.

PITTSBURG, PA.—Bids are asked by the department of public safety, until May 23, for repairing engine houses Nos. 13 and 5, and for furnishing refrigerating plant at the office of the bureau of health. Director, J. O. Brown.

PITTSBURG, PA.—Bids are asked by the Birmingham sub-district school board, until June 2, for additions, alterations and repairs for the school building on 15th St., S. S., 28th Ward. Secy., William McGarey; Arch., Edward Stotz, Monongahela Bank Bldg., Pittsburg.——Bids are asked by the department of public works, until May 27, for skylights and ventilators for Brilliant pumping station. Director, Ed. M. Bigelow.

WASHINGTON, PA.—William Miller & Sons, of Pittsburg, received the contract, May 11, for building the new court house and jail, for Washington county, at $379,900.

WEST CHESTER, PA.—Bids are asked until May 27, according to reports, for the erection of a brick and stone hospital building at the county poor farm. R. T. Garrett, County Comr.

BALTIMORE, MD.—A fire in this city, May 17, damaged the pier and offices of the Old Bay Line Steamship Co., at the foot of Concord St., causing an estimated loss of $50,000 to $75,000.

ALEXANDRIA, VA.—J. H. Hobson & Co. have been awarded the contract for erecting the new court house and jail building at Fort Meyer Heights at $18,347.

AUGUSTA, GA.—It is reported that A. G. Stamford will build 40 dwelling houses for J. B. White, on Broad and Jones Sts., to cost about $50,000.

BRUNSWICK, GA.—We are informed that the Southern Ry. Co. will soon build two new warehouses and a wharf in this city. C. H. Hudson, Ch. Engr., Washington, D. C.

SAVANNAH, GA.—Reports state that the contract for the interior finish, plumbing, etc., for the U. S. building in this city, has been let to the Anderson Construction Co., St. Louis, Mo., at $76,997; time, 6 months.

BOWLING GREEN, O.—Parts, Jones & Jones, Fostoria, O., are said to have received the contract for the erection of an infirmary at this place, at $9,496. G. W. Gaghan, County Audr.

COLUMBUS, O.—Bids are asked until June 1 for the erection of a 2-story engine house near the Union depot. M. M. Moore, Clk. of Council.

EAST CLEVELAND, O.—Bids are asked until June 3 for the erection of an addition to the Prospect St. school building. Clk., Norman Doan.

PIQUA, O.—The Steel Storage & Elevator Construction Co., Buffalo, N. Y., has been awarded the contract for building a malt elevator for the Piqua Malt Co., to have a storage capacity of 200,000 bushels. There will be four steel tanks, each 38 ft. in diameter and about 60 ft. high, and weighing 60 tons.

TOLEDO, O.—The commissioners of Lucas county are said to have chosen D. L. Stine, 325 Superior St., Toledo, as architect for the new $50,000 jail building.

PARAGON, IND.—Bids are asked by the I. O. O. F. and K. of P. lodges, until May 28, for the erection of a 3-story brick building, 45x90 ft. Chn., H. H. Kirby; Arch., Krutsch, 25 Washington St., Indianapolis, Ind.

DETROIT, MICH.—Bids are asked by the committee on public buildings, until May 21, for building a 4-story stone and brick market and memorial building for the Grand Army on the Cass Market site, bounded by Grand River, Adams and Cass Aves.; deposit required, $2,000.

BARTONVILLE, ILL.—Bids are asked by the commissioners of the Illinois Asylum for the Incurable Insane, Arcade Bldg., Peoria, Ill., until May 25, for the construction of five buildings for the asylum. Archs., Reeves & Baillie, Y. M. C. A. Bldg., Peoria.

CARPENTERSVILLE, ILL.—Bids are asked by the school board of Dundee, Ill., according to reports, until May 27, for the erection and heating of an 8-room school building at this place. Clk., C. J. Bethkf; Arch., W. W. Abell, Home Bank Bldg., Elgin, Ill.

CHICAGO, ILL.—A fire in this city, May 12, destroyed the Armour Elevator D, owned by the Chicago, Burlington & Quincy R. R. Co., causing a reported loss of $180,000; insurance, $150,000. The total loss to contents of this and other buildings is estimated at about $900,000.

**CHICAGO, ILL.—Bids are asked by the department of public works until May 24, for furnishing and installing steel cases in upper and lower vaults in the office of the city comptroller. Comr., L. E. McGann.**

KANKAKEE, ILL.—Bids are asked by the directors of the Kankakee Public Library, until May 25, for the erection and completion of a public library building. Secy., A. A. Davidson; Archs., Morrison & Fuller, Chicago, Ill.

**NEW LONDON, WIS.—Bids are asked until May 23, for erecting a brick school building at this place, 76 × 126 ft., to cost about $20,000. Archs., Messmer & Son, Milwaukee, Wis.**

FRAZEE, MINN.—Bids are asked until May 30 for the construction of a brick block for Baer Bros. Arch., A. J. O'Shea, Fargo, N. Dak.

**SEATTLE, WASH.—Bids are asked until June 11, for construction, plumbing, steam and heating and gas piping of sundry buildings, at the new military post at Magnolia Bluffs, Seattle. W. W. Robinson, Asst. Q. M.**

EUGENE, ORE.—The county court has let contract for furnishing heating apparatus for the new court house to William Gardner & Co., of Portland, Ore., at $3,190.

PORTLAND, ORE.—The contract for erecting the new U. S. building in this city was awarded to the Bentley Construction Co., Milwaukee, Wis., May 7, at $347,835; Snake River (Oregon) granite to be used. The next lowest bid was that of C. E. H. Campbell, Council Bluffs, Ia., at $358,999, using Oregon granite.

SACRAMENTO, CAL.—The Metropolitan Theatre Building was destroyed by fire, May 8, causing a reported loss of $75,000; fully insured.

SAN FRANCISCO, CAL.—Competitive plans and specifications are asked by the board of supervisors, until Sept. 12, for the erection of a brick or stone hospital building, to cost about $300,000. Clk., John A. Russell.

MONTREAL, QUE.—It is reported that plans have been accepted for the new building for St. Jean Baptiste Church, to replace the one destroyed by fire last fall; estimated cost, $100,000. Arch., J. Emile Vanier.——Plans are being prepared for a new 6-story fireproof building, to be erected at St. James and St. John Sts., for the London & Lancashire Life Assurance Co. Arch., Edward Maxwell, 38 St. Sacramento St.

GUAYAQUIL, ECUADOR.—Bids are now being received by the government of Ecuador, according to reports, for the erection of an iron building to be used as a custom house. Bids will close Aug. 31. Miguel Valverde, Consul-General of Ecuador, 24 State St., New York.

## WATER-WORKS.

PORTLAND, ME.—The Harvey Water & Light Co. has been incorporated with a capital stock of $135,000, of which $300 is paid in; Pres., M. S. Bolles, Boston, Mass.; Treas., C. J. Chapman, Portland.

NORTH HAVERHILL, N. H.—The question of building gravity works will be considered May 21, the water supply to be secured from a brook east of the village; head to be 179 ft.

SEYMOUR, CONN.—The contract for building the works of the Seymour Water Co. has been let to C. W. Blakeslee & Sons, New Haven, Conn. They will take the remaining stock of the company which has not been sold to local parties. Capital stock, $50,000. Pres., W. H. H. Wooster; Secy., Clarence Blakeslee, of New Haven.

LANSINGBURG, N. Y.—This place voted last week to issue $60,000 in bonds for the proposed new reservoir. This and other improvements to the works are estimated to cost about $85,000. Chas. A. Roemer, Cy. Engr.

NORWOOD, N. Y.—We are informed that Watson B. Berry, Massena, N. Y., was granted on May 11 a perpetual franchise for supplying this place with water. The Norwood Water Co. is being organized with a capital stock of $10,000. The supply will be either taken from the Racquette River or from wells and pumped to a stand-pipe. There will be about four miles of pipe. There is no provisions in the franchise for the purchase of the works by the city nor any agreement as to changes. The contract for the work will probably be given to the Mandeville-Barry Co., Ltd., Hazleton, Pa., but this has not been decided upon. Bids will be asked soon for pumping machinery, pipe, a stand-pipe, etc. Pres., W. B. Berry, Massena; Vice-Pres., Dix W. Smith, Elmira, N. Y.; Secy. and Treas., Philip J. Barry, Hazleton, Pa.; Engr., Wm. H. Cushman, Res. Engr. St. Lawrence Construction Co., Massena.

ROME, N. Y.—The Stanwix Engineering Co., Rome, is preparing plans for a new auxiliary steam pumping plant of 5,000,000 gallons capacity at Ridge Mills; estimated cost, $18,000. Mayor Kingsley may be addressed.

AVON, N. J.—It is reported that this place recently voted to issue bonds for works and a sewerage system.

GLEN GARDNER, N. J.—The Junction Water & Improvement Co. has been incorporated, with a capital stock of $20,000, of which $5,000 is paid in. Incorporators: Warren O. Laudenberger, Junction, N. J., and Edward Humphrey and John H. Nunn, Glen Gardner. At present there is a small plant owned by the Glen Gardner Water Co. It is for domestic use only.

OCEAN GROVE, N. J.—It is reported that the Township Water-Works Co. will be reorganized. The present company was granted a franchise some time ago, the works to be completed May 1. The plant is still unfinished. The new company proposes to start with a capital stock of $75,000 and to complete the works in three months.

PERTH AMBOY, N. J.—It is stated that new bids will again be asked by the water commissioners for furnishing a 4,000,000-gallon pump for the works at Runyon.

WESTFIELD, N. J.—The Westfield Water Co. has been incorporated with a capital stock of $50,000, of which $3,000 is paid in, to supply water to Westfield. Incorporators: Henry C. Sergeant, Levi E. Hart, William S. Welch and Milford M. Scudder, of Westfield; Theodore S. Bird, Clinton, and William J. Lansley, Elizabeth.

GROVE CITY, PA.—Chandley Bros. & Co., Beaver Falls, Pa., have been awarded the contract for building the works, as advertised in Engineering News, at $14,811.

HARRISBURG, PA.—Bids are asked until May 24 for furnishing, as may be required during the year, fire hydrants, stop valves, cast-iron water pipe, castings, etc. E. Mather, Pres. Water Comrs.

KITTANNING, PA.—The Manor Water Co. has been incorporated with a capital stock of $1,000 by Valentine Neubert, Henry Linderman and others. Mr. Neubert in 1897 was president of the Kittanning Water Co.

MEDIA, PA.—Bids are asked until May 30 for furnishing the materials and for improving the works, as described in our advertising columns. J. W. Ledoux, Engr., 112 North Broad St., Philadelphia.

SHARPSVILLE, PA.—Bids are asked until June 9 for furnishing materials and for building works, as described in our advertising columns. Consult. Engr., J. B. Strawn, Salem, O.; Secy., S. H. Phelps.

BALTIMORE, MD.—Bids are asked until May 23 for furnishing and constructing wire screens, guides, hoisting machinery, etc., at the Lake Clifton gate house. Wm. L. Kenly, Ch. Engr. Water Dept.

POCOMOKE CITY, MD.—K. M. Stevenson, Mayor, writes us that owing to the war the matter of placing bonds for the proposed works and sewerage system has been postponed for a short time. More definite information will probably be known in about 30 days.

BENWOOD, W. VA.—Jas. Kinney, Bellaire, O., is interesting Pittsburg parties in the proposed works, for which he was granted a 30-year franchise last year.

CHARLESTON, S. C.—The committee was reported on the proposed new water supply for this city to be furnished by the Charleston Water & Light Co. from the Edisto River. It is probable that work on the plant will be begun at once. Samuel Lapham and Chas. R. Valk are on the council committee, and Wm. E. Huger and H. F. Bremer are President and Secretary, respectively, of the new company.

MARIANNA, FLA.—It is reported that this place has decided to build works. Councilman Geo. Farley may be addressed.

TAMPA, FLA.—This place voted May 3 against issuing $200,000 in bonds for the purchase of the works of the Tampa Water-Works Co. or for constructing a new plant.

COLUMBUS, MISS.—The election called for May 12 to vote on the question of issuing $70,000 in bonds for improving works and for a sewerage system has again been postponed. Mayor, W. D. Humphries.

McCOMB, MISS.—This place voted May 9 to issue $40,000 in bonds for works and a sewerage system. C. C. Jarvis, Mayor.

SUMMIT, MISS.—Bids are asked until about July 5 for furnishing the materials and for constructing works, $15,000 in bonds for which will be sold June 7, according to reports. J. B. Holden, Mayor; Alber & Byrne, Engrs., Birmingham, Ala.

MEMPHIS, TENN.—John Lundie, The Rookery, Chicago, Ill., has submitted a report on the value of the works of the Artesian Water Co. The committee has recommended the purchase of the works for $1,030,000. It would cost $1,283,930 to duplicate the works. John I. Walsh, H. L. Binkley and Benj. R. Henderson are on the committee.

BELLEVUE, O.—Bids are asked until May 23 for furnishing 6,500 ft. of 6-in. and 5,600 ft. of 4-in. cast-iron water pipe. The improvements will cost about $7,000. W. H. Erdrich, Secy. Bd. Water-Works Trustees.

CLEVELAND, O.—Bids are asked until June 10 for furnishing cast-iron water pipe and special castings for the year; estimated cost, $105,000; check, $5,000. Geo. R. Warden, Dir. Pub. Wks.

SYCAMORE, O.—Bids will be asked in about three weeks for constructing the proposed works and light plant at this place; estimated cost, $20,000. Engr., G. L. McKibben, Van Wert, O.

AURORA, ILL.—The Aurora Bleachery & Dye Works has found the water furnished by the city to be unsuitable for its purposes, and has employed L. Wilson, 53 Dearborn St., Chicago, to sink an artesian well.

**KANKAKEE, ILL.—The hospital trustees have rejected the bids received recently for a water filtration plant at the hospital grounds. The appropriation was $10,000, and the bids ranged from $15,000 to $25,000.**

PLAINFIELD, ILL.—Bids are asked until May 26 for constructing works. We are informed that the works will require a steel or brick tower 80 ft. high, a 60,000-gallon tank, a 10-HP. gasoline engine, a deep well pump and a pumping station, 47 × 22 ft.; estimated cost, $5,500. Engr., H. D. Hallett, 108 Grand Ave., Aurora, Ill.; Clk., Wm. G. Stopp.

SOUTH PEORIA, ILL.—We are informed that this village is discussing the advisability of placing water mains in some of the streets. Population, about 2,500.

JUNEAU, WIS.—Bids are asked by the city clerk until May 20 for extending the water mains at a cost of about $2,500, according to reports.

OSAGE, IA.—Chas. Kathan, Mayor, writes us that a committee composed of J. W. Williams, J. W. Barrett and D. McDougal, is making efforts to secure works. Population, 3,000.

OXFORD JUNCTION, IA.—J. K. Bloom, Recdr., writes us that a special election will be held June 6 to vote on the question of building small works. The town can be bonded for only $3,000. Population, 1,800. D. Poppe and S. S. Zigler are on the committee.

GREAT FALLS, MONT.—The Little Chicago Water-Works Co. has been incorporated to supply water to Little Chicago, a smelter settlement, near this city. Capital stock, $5,000. G. H. Goodrich, Alfred Malmbey and R. P. Rickards are interested.

GALVESTON, TEX.—The water commissioners have taken steps to build a double pipe line under Galveston Bay in order to protect the water supply; estimated cost, $50,000.

LA JUNTA, COLO.—The Holbrook Valley Artesian Well Co. has been incorporated with a capital stock of $2,000 by W. N. Randall, C. H. Badger and N. B. Morre.

GOLDFIELD, COLO.—Judge Rockwell and Smith & Moffat, Denver, are reported as interested in the proposed works for this place, for which they are having estimates made; estimated cost, $30,000. Mayor King may be addressed.

BAKER CITY, ORE.—The committee has reported on the proposed new gravity works to cost $130,000 or improvements to the works, at a cost of about $40,000. Aldermen C. H. Stuller and L. Crabill compose the committee.

SACRAMENTO, CAL.—An election will soon be held to vote on the question of issuing $130,000 in bonds for new water mains, etc. Trustees Brown and Devine may be addressed.

SANTA BARBARA, CAL.—The city engineer has been directed to prepare plans for extending the water tunnel 200 ft., at a cost of $13.76 a ft. Councilman D. F. Hunt may be addressed.

CORONA, CAL.—We are informed that this place has asked for bids for constructing three miles of cemented canal for water purposes. H. Clay Kellogg, Engr., Elsinore, Cal.

ELSINORE, CAL.—We are informed that the plant for this place, to cost about $19,397, is about completed. Des. Engr., Burr Bassel, Los Angeles; Contractor, J. M. Gardner, Los Angeles, Cal.; Cy. Engr., H. Clay Kellogg.

SAN FRANCISCO, CAL.—Jas. D. Phelan, Mayor, writes us that nothing is projected yet in regard to the new water supply. A charter election will be held May 26. The charter, if adopted, requires estimates to be made by the city engineer for public improvements and action. C. A. Clinton, Chn.

SONOMA, CAL.—F. T. Duhring, Pres. Trustees, writes us that a new election will be called as soon as possible to again vote on the question of issuing bonds for works; the election on April 26 having resulted in defeat.

FORT MOJAVE, ARIZ.—Bids are asked until May 27 for building small works and sewers at the Indian school. Supt., John J. McKoin, Indian Office, Washington, D. C.

KENDRICK, IDAHO.—The committee is reported to have submitted a report on granting a franchise for works to cost about $11,000.——Orchard, Wolf & Zimmerman have asked for a 30-year franchise for gravity works.

## IRRIGATION.

LEADVILLE, COLO.—The Twin Lakes Reservoir Co., Pueblo, opened bids May 10 for the construction of a reservoir and a canal 2,100 ft. long by 100 ft. wide. James K. Roberts, Pres.; Henry Koons, Treas.

WILLIAMS, ARIZ.—Reports state that an irrigation system is being planned to water 300 acres, near Saticoy, to cost about $6,000.

NEW COMPANIES.—The Farmers' Corporation Ditch Co., Montrose, Colo.; to operate in San Miguel and Montrose counties; $40,000; J. H. Adams, J. H. Frazee and J. L. Gray.

Florida Irrigating Ditch Co., Trinidad, Colo.; J. D. D. Beca, Pres.; Ben Stevens, Secy.; to operate in Las Animas county.

Trenton & Bear River Canal Co., Trenton, Utah; $30,000, with $6,000 paid in; to construct a canal 25 miles long to irrigate 30,000 acres; Marion W. Butler, Pres.; Pearley Merrill, William Bingham, Jos. Wood, Geo. W. Adams, Chas. G. Wood, Secy. and Treas.

## SEWERAGE.

REVERE, MASS.—Bids are asked until May 21 for constructing about 3,500 ft. of pipe sewer in Yeamans St. Engrs., Whitman & Howard, 85 Devonshire St., Boston; Chn. Comrs., W. H. Lawrence.

DANBURY, CONN.—Bids are asked until May 26 for constructing about 1,100 ft. of 18 and 15-in. pipe sewers, 110 18 and 15-in. manholes, etc.; bond, $1,500. David Jennings, Chn. Com.; A. L. Davis, Cy. Engr.

BINGHAMTON, N. Y.—Bids are asked until May 21 for constructing sewers in Vestal St. B. W. Mosher, Cy. Clk.

**BUFFALO, N. Y.—Plans are being prepared in the bureau of engineering for a 6-ft. brick sewer main in Emslie St.**

JOHNSTOWN, N. Y.—James N. Miller, Cy. Engr., writes us that the question of constructing the proposed intercepting sewer is not being considered at present. It is not known when anything will be done about it. L. S. Jennings, Chas. O. Walt and John Murphy, compose the committee.

**AVON, N. J.—It is stated that an election will be held to vote on the question of issuing bonds for a system and water-works.**

RED BANK, N. J.—Reports have been submitted to the board of commissioners for a sewage filtration plant for the new system.

BELLEVUE, PA.—An election will soon be held to vote on the question of issuing $48,000 in bonds for a system. Wm. Martin, Chn. Com.

CORAOPOLIS, PA.—Bids are asked until May 28 for constructing 24 to 10-in. pipe sewers in a number of streets. J. D. McCabe, Borough Engr., 341 4th Ave., Pittsburg; H. J. Wheeler, Chn. Com.

WASHINGTON, D. C.—Bids are asked by the district commissioners until May 28 for constructing sewers, as stated in our advertising columns.

McCOMB, MISS.—Bids will probably be asked at once by the council for constructing sewers and water-works, for which $40,000 in bonds were voted May 9. C. C. Jarvis, Mayor.

CLEVELAND, O.—It is stated by local papers that Geo. R. Warden, Dir. Pub. Wks., will soon ask for bids for constructing section 4 of the Walworth Run sewer. It will be from 18 to 45 ft. wide; estimated cost of this section, $200,000.

HAMILTON, O.—The city engineer has been instructed to prepare plans for making a storm sewer of the hydraulic canal, to cost about $17,350.

MARION, O.—The question of sewage disposal beds is reported as being considered.

MARTIN'S FERRY, O.—Bids are asked until May 21 for constructing sewers in five streets. R. F. Allender, Cy. Clk.

**ST. MARY'S, O.—Bids will probably be asked in about three weeks for constructing the proposed system and for a large amount of brick paving. Engr., G. L. McKibben, Van Wert, O.**

TOLEDO, O.—Bids are asked until May 23 for constructing a 10-in. pipe and a 24-in. brick sewer in certain streets. L. P. Harris, Cy. Clk.

**TOLEDO, O.—Bids are asked until May 30 for constructing 15-in. pipe and 24-in. brick sewers in three streets, and until June 13 for 84 and 66-in. brick sewers in two streets. L. P. Harris, Cy. Clk.**

INDIANAPOLIS, IND.—Bids are asked until May 20 for constructing sewers in several streets. M. A. Downing, Chn. Bd. Pub. Wks.

LAFAYETTE, IND.—Bids are asked until June 13 for constructing 2,750 ft. of 36 to 12-in. pipe sewer. W. K. Eldridge, Cy. Engr.

**MARION, IND.—Bids are asked until June 7 for furnishing the material and for constructing a system, as described in our advertising columns. John Watts, Cy. Clk.; L. M. Overman, Cy. Engr.**

SOUTH BEND, IND.—Bids are asked until June 13 for constructing pipe sewers in two streets. L. A. Hull, Cy Clk.

**CHICAGO, ILL.—Bids are asked until May 27 for constructing sewers in a large number of streets. L. E. McGann, Pres. Bd. Local Improvements; J. S. Sheahan, Secy.**

CEDAR RAPIDS, IA.—Bids are asked until May 27 for a brick and pipe sewer. R. N. Buck, Chn. Com.

WEBSTER CITY, IA.—The council is reported to have decided in favor of building the proposed system at once; estimated cost, $25,000. Engr., E. E. Fox, Chamber of Commerce Bldg., Chicago.

CARROLLTON, MO.—Burns & McDonnell, Kansas City, Mo., are preparing plans and specifications for a system for this place.

COLUMBIA, MO.—New plans for the proposed system to cost $10,000, will be prepared. Walter Williams, Chn. Com.; N. D. Robnet, Secy.

SACRAMENTO, CAL.—An election will soon be held to vote again on the question of issuing $120,000 in bonds for sewer extensions, etc.

**FORT MOJAVE, ARIZ.—Bids are asked until May 27 for constructing sewers and small water-works at the Indian school. John J. McKoin, Supt., Fort Mojave.**

ROSSLAND, B. C.—This place voted May 17 on the question of issuing $35,000 of 25-year 5% bonds for a system. Engineer Mohun has recommended the construction of sewage disposal beds. Alderman Ladoude and Mayor Wallace may be addressed.

## GARBAGE DISPOSAL—STREET CLEANING.

TROY, N. Y.—Bids are asked until May 20 for the disposal, by means of cremation or other efficient process, of all garbage, dead animals, store, house and market offal, and all waste material of like character, and to receive and dispose of all street sweepings and material removed from cesspools and sewers, gathered by the city scavengers or contractors having contracts for removal of garbage, material from cesspools, sewers, etc. Bids shall contain a proposal fixing a price per year for a period of five years for all work named in the specifications. Bond, $10,000. The contract for this work was recently let to John H. Woods, but it is said that he has refused to sign the contract. E. Ogden Ross, Secy. Contracting Bd.

ASBURY PARK, N. J.—Bids are asked until May 23 for the removal of garbage, dead animals and rubbish, etc., for one year from June 15, and also for the removal of ashes. W. C. Burroughs, Cy. Clk.

NEW ORLEANS, LA.—The committee on sanitation will ask for bids at once for rebuilding the old garbage crematory, according to local papers. W. A. McGary, Com. Pub. Wks.

## STREETS AND ROADS.

MANCHESTER, N. H.—It has been voted to extend Kelley St. for 1,100 ft. William C. Clarke, Mayor.

FALMOUTH, MASS.—The selectmen have been authorized to purchase a steam road roller from the Buffalo-Pitts Co., Buffalo, for $3,000.

HAVERHILL, MASS.—Bids are asked until May 31 for furnishing cugestones and flagstones, as stated in our advertising columns. B. W. Davis, Clk. Com.

LEE, MASS.—Bids are asked until May 24 for macadamizing about 3,800 ft. of road. I. H. Pixley, First Selectman.

NORTH ADAMS, MASS.—Bids are asked until May 25 for about 1,800 sq. yds. of granite block or brick paving and setting about 660 lin. ft. of curb in Union St., as stated in our advertising columns. John H. Emigh, Comr. Pub. Wks.

BRIDGEPORT, CONN.—The question of buying a stone crushing plant, to cost about $1,800, is being considered by the board of public works.

DURHAM, CONN.—Bids are asked until May 24 for grading and macadamizing two sections of roads. F. L. Wellman, First Selectman.

HAMDEN, CONN.—Bids are asked until May 26 for improving roads. J. H. Davis, First Selectman.

HARTFORD, CONN.—Bids are asked until May 25 for Trinidad Lake asphalt and granite block paving, as stated in our advertising columns. Chas. H. Normam, Pres. Bd. St. Comrs.

ARDSLEY, N. Y.—W. Odell, Pres., informs us that a proposition to raise $25,000 for improving roads was defeated by a tie vote.

FULTON, N. Y.—Bids are asked until May 27 for about 800 sq. yds. of brick paving and 300 lin. ft. of curbing in First St. O. C. Breed, Cy. Engr.

HARRISON, N. Y.—The town board has decided to issue $5,000 in bonds for road improvements.

MOUNT VERNON, N. Y.—Bids are asked until June 7 for grading, curbing, macadamizing, etc., in portions of Columbus Ave. Wm. N. Hoyt, Cy. Clk.

SCHENECTADY, N. Y.—Bids are asked by the council until May 24 for grading, curbing and flagging in Dermont Ave.

SYRACUSE, N. Y.—Reports state that a contract has been awarded to Harry Ryan, at $40,000, for paving in South Salina St. with Mason block.

TROY, N. Y.—Bids are asked until May 20 for constructing flagstone sidewalks in a portion of Hawthorne St., and until May 24 for brick paving in Washington St., Douw St. and Jay St. E. Ogden Ross, Secy. Contracting Bd.

PLAINFIELD, N. J.—Bids are asked by the street committee, until May 26, for macadamizing Stelle, Madison and Woodlawn Aves. An effort is being made to macadamize West Fourth St. and East Ninth St. Jas. McMurray, Cy. Clk.

SEA SIDE PARK, N. J.—Bids are asked until May 21 for about 25,000 cu. yds. of excavation in four streets.

DORRANCETON, PA.—Bids are asked until June 1 for grading, curbing and about 4,000 ft. of brick paving 60 ft. wide in Wyoming Ave. J. D. Grimes, Chn. Com.

LANSDOWNE, PA.—Bids are asked until June 3 for constructing artificial stone pavements in Lansdowne Ave. H. L. Warren, Borough Secy.

PHILADELPHIA, PA.—Bids are asked until May 19 for grading, paving, etc. Thos. M. Thompson, Dir. Dept. Pub. Wks.

WILMINGTON, DEL.—Bids are asked until May 21 for furnishing about 30,000 sq. yds. of paving brick. Harvey J. Wiley, Secy. Bd. Directors.

WASHINGTON, D. C.—The district commissioners have ordered that C St., Northeast, between 10th and 12th Sts., be graded; also that the granite block pavement on 10th St., between Pennsylvania Ave. and F St., Northwest, be relaid.

ALEXANDRIA, VA.—Reports state that the city council has authorized the curbing and paving with brick of King St., from Fairfax to Royal St.

HUNTINGTON, W. VA.—Bids are asked until June 11 for constructing a road. F. L. Doolittle, County Clk.

ST. AUGUSTINE, FLA.—P. S. Amon, Cy. Clk., informs us that the south side of St. George St. will probably be paved next winter with brick.

NEW ORLEANS, LA.—Bids will soon be asked for paving Rampart St. with asphalt from Esplanade St. to Kelerec St. Alph. Rabouin, Controller.

GEORGETOWN, KY.—The county commissoiners have awarded a contract to Deal & Murphy, at $30,969, for constructing 26 miles of gravel roads in Findley and Vienna townships.

CLEVELAND, O.—A resolution has been adopted by the county commissioners to pave a portion of the Ridge Road with brick and asphalt. Samuel J. Baker, County Surv.

CONNEAUT, O.—A resolution has been passed by the council for constructing a sidewalk in Harbor St. C. H. Simons, Mayor; J. L. Risley, Clk.

EAST LIVERPOOL, O.—Bids are asked until May 31 for grading the roadways, curbing and paving the sidewalks in Mulberry St. J. N. Hanley, Cy. Clk.

LIMA, O.—Bids are asked until June 9 for about 30,000 sq. yds. of brick paving in South Main St., until June 24 for about 10,000 sq. yds. of brick pavement in Wayne St., and until July 7 for constructing about 20,000 sq. yds. of brick paving in North St. R. H. Gamble, Cy. Engr.; C. E. Lynch, Cy. Clk.—Collet St. will be paved with asphalt from Spring to Elm St. J. H. Hughes, Pres. Council.

ST. CLAIRSVILLE, O.—Bids are asked until June 1 for improving the roads in Warren township. Smiley Bernhard, Pres.; S. B. Piper, Clk. Trustees Warren Township.

ST. MARYS, O.—Brick paving and sewerage have been proposed, for which bids will soon be asked. G. L. McKibben, Engr., Van Wert.

SWANTON, O.—Main St. will be paved with brick, estimated cost $9,000, according to reports. H. E. Riggs, C. E., Toledo.

TOLEDO, O.—Bids are asked until June 6 for paving Second St. and for grading in Kelsey Ave. L. P. Harris, Cy. Clk.

VAN WERT, O.—Bids will be asked in about three weeks for about 26,000 sq. yds. of paving; estimated cost, $39,000. G. L. McKibben, Cy. Engr.

GREENSBURG, IND.—Reports state that a contract has been awarded to De Goyler & Shields, at $29,518, to construct gravel roads.

INDIANAPOLIS, IND.—Bids are asked until May 20 for constructing cement sidewalks in portions of 16 streets and for paving portions of nine streets with creosoted wooden blocks. M. A. Downing, Chn. Bd. Pub. Wks. A hearing will be given May 20 to consider the proposed paving in Gray, Louisiana and South Sts. with brick and constructing cement sidewalks.

SEYMOUR, IND.—It has been voted to construct a gravel road from Seymour to Dudleytown, according to reports.

SOUTH BEND, IND.—Bids are asked by the city clerk until June 13 for brick paving, cement curbing in portions of William, Joseph and Sample Sts.

CHAMPAIGN, ILL.—Ralph P. Brower, Cy. Engr., writes us that ordinances have been passed for about two miles of brick paving on gravel concrete foundation and concrete and limestone curb and gutter.

MATTOON, ILL.—Norton & Gilmore, Terre Haute, have been awarded a contract, at about $8,000, for constructing brick and cement sidewalks.

QUINCY, ILL.—Reports state that the council has recommended the appropriation of $15,000 for paving.

KEWAUNEE, WIS.—Bids are asked until June 4 for improving certain streets, according to reports. J. F. C. Kuehl, Comptroller; August Bohlig, Cy. Engr.

DES MOINES, IA.—A hearing will be given June 6 to consider the question of paving in two alleys with brick on concrete foundation and Portland cement filler. John MacVicar, Mayor; E. W. Woodruff, Cy. Clk.

MANKATO, MINN.—The council has resolved to construct sidewalks in portions of six streets. A. R. Pfau, Mayor; Henry W. Brown, Cy. Recorder.

ST. PAUL, MINN.—Bids are asked until May 23 for improving Burr St., between Colima St. and Magnolia St. C. H. Bronson, Clk. Bd. Pub. Wks.

OMAHA, NEB.—Bids are asked until May 27 for curbing in Jackson St. and for curbing and paving in 20th St. Andrew Rosewater, Chn. Bd. Pub. Wks.

CARROLLTON, MO.—Plans are being prepared by Burns & McDonnell, Kansas City, Mo., for paving and sewers.

KANSAS CITY, MO.—Bids are asked until May 19 for constructing sidewalks in portions of seven streets and for brick paving in four streets, asphalt in one street and curbing in three streets. Henry A. Wise, Cy. Engr.

GALVESTON, TEX.—The city and county will construct a shell and gravel road to connect with the Nottingham Road; estimated cost, $9,600, of which the city is to pay $3,000.

SPOKANE, WASH.—Riverside Ave. will be paved with asphalt from Division St. to Monroe St.; estimated cost, $50,763.

BERLIN, ONT.—Bids are asked until May 31 for constructing cement sidewalks. E. Bricker, Chn. Bd. Wks.; H. Aletter, Town Clk.

OWEN SOUND, ONT.—Reports state that bids will soon be asked by the board of works for furnishing a 12-ton road roller.

WINDSOR, ONT.—An election will be held to vote on the question of appropriating $9,000 for the purchase of a macadamizing plant.

## MANUFACTURING PLANTS.

ATTLEBORO, MASS.—A fire in this city, May 18, destroyed the watch case factory of J. M. Bates, on Mill St. The loss to this building and surrounding property is reported at about $800,000.

WINSTED, CONN.—The machine shop at this place, recently burned, will be rebuilt, according to reports. The contract is said to have been let to Otto Thiebault.

SANDY HILL, N. Y.—We are informed that bids will be received after May 20 for the machinery which has yet to be purchased for the new paper and pulp mill to be erected here for the Howland Paper Co. A steam engine, shafting, steam piping and beating and refining machinery has not yet been contracted for, but the electrical work has already been let and the installation of the boilers and paper machine provided for. The contract for the erection of the six new buildings has been awarded to James Stewart & Co., 830 Prudential Bldg., Buffalo, N. Y.; the structural steel work will be supplied by the Buffalo Structural Steel Works, Letchworth St., Buffalo, Archs., Tower & Wallace, 1123 Broadway, New York.

BALTIMORE, MD.—Reports state that plans have been prepared for an addition to the iron foundry of S. B. Sexton & Son, on Conway, near Green St. Arch., J. E. Lafferty, 28 Builders' Exchange.

ATLANTA, GA.—G. L. Norrman, Architect, 845 Equitable Bldg., informs us that the proposition to construct a new shoe factory in this city has not been consummated and probably will not be.

CEDARTOWN, GA.—It is reported that the Paragon Mills Co., of this town, will build a new plant, with a capacity of about 7,000 spindles. Secy. and Treas., A. W. Birkbeck.

JEANERETTE, LA.—The plant of the Jeanerette Lumber & Shingle Co. has been burned, causing a reported loss of $60,000.

CHICAGO, ILL.—Allen Conkling and William Cronkhite, of the Troy Laundry Machinery Co., are said to contemplate the erection of a new building at Erie and 96th Sts., to be occupied as a soap factory, by the Conkling-Cronkhite Chemical Co.

CLEBURNE, TEX.—Reports state that Hoshour & Evans have been awarded the contract for the erection of new shop buildings for the Gulf, Colorado & Santa Fe R. R., including a stone machine shop, 340 x 120 ft.; wood and iron boiler shop, 340 x 90 ft.; stone paint shop, 180 x 90 ft.; stone car shop, 180 x 90 ft.; wood and iron engine and boiler house, 88 x 40 ft.; wooden coal house, 22 x 40 ft.; stone office building, 40 x 65 ft.; wood and iron store house, 200 x 40 ft.; iron fire department building, 25 x 40 ft.; iron water tower, 16 x 100 ft.; stone oil house, 30 x 60 ft.; iron electrical room, 20 x 40 ft.; stone transfer pits, 70 x 300 ft.; covered platform, 100 x 40 ft.; iron tool house, 30 x 60 ft.; total cost of the structures will exceed $100,000. C. F. W. Felt, Ch. Engr., Galveston, Tex.

MARMORA, ONT.—The mill of the Canadian Gold Fields Co., of Marmora, has been destroyed by fire; estimated loss, $75,000.

## GAS PLANTS.

EVERETT, MASS.—The New England Structural Co., East Everett, has been awarded the contract for furnishing and erecting the condenser house and machine shop for the New England Gas & Coke Co.'s plant.

EVERETT, MASS.—Reports state that the Massachusetts Pipe Line Co. has awarded a contract to Bartlett, Hayward & Co., Baltimore, to construct a steel gas holder of 5,000,000 cu. ft. capacity at this place.

BEDFORD, PA.—Bids are asked until June 4 for drilling a test oil well for the Bedford County Oil & Mineral Prospecting Co., Ltd. Geo. W. Oster, Secy.

OGONTZ, PA.—It is reported that the proprietors of Ogontz Park are negotiating with the Jenkintown & Cheltenham Gas Co., Jenkintown, for the lighting of the streets with 16-c. p. Welsbach lights.

NEWARK, N. Y.—Application has been made to the trustees by John T. Kinhan for a franchise to furnish this town with natural gas.

CHARLESTON, W. VA.—Bids are asked by the Charleston Natural Gas Co., until May 20, for sinking and constructing a pipe line 28 miles long of 8, 6 and 4-in. pipe. J. W. Penhale, Supt.

EVANSTON, ILL.—A contract has been awarded to the Western Gas Construction Co., Fort Wayne, Ind., by the Northwestern Gas Light & Coke Co., Evanston, for the installation of a new water gas apparatus to produce 700,000 cu. ft. a day, according to reports.

NEW COMPANIES.—International Oil & Mining Co., Wayne, W. Va.; $4,000,000, with $100 paid in; to drill for oil and gas, to irrigate, etc.; Wm. Gates, J. H. Showden, W. P. Lucas, Geo. G. Showden, Oil City, Pa.; Henry Booker, Shamburg, Pa.

International Sanitary Gas Co., New York; $5,000,000, with $1,000 paid in; to manufacture gas from garbage, etc.; H. K. Davis, Wm. H. Woodrun, Wm. H. Llewellyn, J. A. Simmons, New York; Wm. F. S. McIvin, East Orange, N. J.

Triple State Natural Gas & Oil Co., Franklin, Pa.; $5,000,000, with $200,000 paid in; to develop oil and natural gas; F. M. Simpkins, D. D. Wallory, L. G. Brown, E. E. Uran, E. H. Sibley, Franklin, Pa.

People's Oil Co, Freedom, Pa.; $5,000,000, with $100 paid in; to deal in all kinds of oils; E. J. Bishonberger, Geo. J. Mohr, E. R. Sebring, Chas. Dambach, W. H. Blatt, Freedom, Pa.

Washington County Gas Co., Washington, Pa.; $500, with $50 paid in; to supply gas for light only; John W. Doman, James Kuntz, Jr., James E. Barnett, M. C. Treat, David Iseman, Washington, Pa.

Buffalo Contracting Co., Buffalo, N. Y.; $10,000; to build gas works, lay gas mains, construct sewers, etc.; P. N. Griffin, T. Guilford Smith, Peter Young, John D. Shattuck, H. P. Bissell.

Standard Gas Co., Tonawanda, N. Y.; $25,000; Benjamin L. Rand, James Armitage, George C. Herschell, Allan Herschell, Nicholas Beckrich, North Tonawanda.

Carbide Gas Machine Co., New York; $50,000; Frederick W. Dunton, Hollis; John H. Webster, William I. Burke, Brooklyn.

Binghamton Gas Co., Binghamton, N. Y.; $750,000; to operate in Binghamton and throughout Broome county; J. H. Jenkins, S. Mankwicz, C. T. Scoville, J. H. Scoville, H. F. Winsten, Emerson McMillan, Jr., J. Craig Havemeyer, New York; W. F. Donthirt, Glen Ridge, N. J.; M. E. Stockhammer, Jersey City.

## MISCELLANEOUS CONTRACTS.

TELEPHONE SYSTEM.—Redlands, Cal.—The Sunset Telephone Co. has been granted a franchise, according to reports.

BRICK AND CEMENT.—Toronto, Ont.—Bids are asked until May 23 for supplying brick and cement. John Shaw, Mayor, Chn. Bd. Control.

RETAINING WALL.—Dayton, O.—Bids will soon be asked for the construction of a stone retaining wall along the Mad River. Frank M. Turner, Cy. Engr.

TELEPHONE SYSTEM.—Eatonton, Ga.—Reports state that a franchise has been granted to E. H. Davis to construct and operate a telephone system and exchange.

TELEPHONE SYSTEM.—Atlantic City, N. J.—The council has granted a franchise to the Atlantic Coast Telephone Co. to operate a telephone system and exchange.

WHARF.—Merigomish Island, N. S.—Bids are asked until May 23 for constructing a wharf at Merigomish Island, N. S. E. F. E. Roy, Secy. Dept. Pub. Wks., Ottawa, Ont.

BOOK CONVEYOR.—Chicago, Ill.—Bids are asked until May 24 for furnishing an electric book conveyor for the public library. W. S. Wickersham, Secy., Chicago Public Library Bldg.

WEIR.—Elkhorn, Cal.—The auditing board of public works, Sacramento, has awarded a contract to Clark & Henry, Stockton, at $24,266, for constructing a weir 2½ miles from this place.

WHARF.—Santa Monica, Cal.—Press reports state that E. P. Clark, Los Angeles, will apply to the board of trustees June 6 for permission to construct a wharf 1,300 ft. long; estimated cost, $20,000.

WHARF.—Los Angeles, Cal.—Kinney & Ryan have awarded a contract to the Thompson Bridge Co., San Francisco, for constructing a wharf 1,260 ft. long and 13 ft. wide, according to reports.

DREDGING.—New York, N. Y.—Bids are asked until May 27 for dredging in the North River off West 34th St., about 100,000 cu. yds. of material. J. Sergeant Crain, Comr. Dept. Docks, Pier A, North River.

TELEPHONE SYSTEM.—Camden, N. C.—The Camden Telephone Co., Camden, has been incorporated by E. Mitchell, P. G. Morisette, H. T. Greenleaf, R. S. Forbes, C. S. Sawyer and others, with a capital stock of $20,000.

TELEPHONE SYSTEM.—Charleston, W. Va.—It is reported that the Mountain State Telephone & Telegraph Co. has been incorporated with a capital stock of $50,000 by G. V. Forman, H. A. Forman, H. V. Thomas, Buffalo, N. Y.; J. W. Penhale, C. B. Couch, Charleston.

UNDERGROUND WIRES.—New York, N. Y.—Deputy Commissioner Walton, of Brooklyn, has granted a permit to the New York & New Jersey Telephone Co. to continue its work in burying wires by constructing subways as follows: North side of Ninth Ave., from 20th to 15th St.; north side of 15th St., from Ninth to Hamilton Ave.; west side of Hamilton Ave., from 15th St. to Gowanus Canal.

## CONTRACT PRICES.

ASPHALT PAVING.—Newark, N. J.—We are informed that the following bids were received May 5 for asphalt paving; Ernest Adam, Engr. St. and Sewer Dept.:

| Bidder. | Streets. Lincoln. | 3d Av. | Court. | Third. | Humboldt. | Murray. |
|---|---|---|---|---|---|---|
| N. J. Asphalt Co. | $1.55 | $1.55 | $1.55 | $1.55 | $1.55 | $1.55 |
| Barber Asphalt Co. | 1.67 | 1.67 | 1.67 | 1.67 | 1.67 | 1.67 |
| Newark A.P. & C. Co | 1.95 | 1.90 | 1.95 | 1.87 | 1.95 | 1.87 |
| Alcatraz L. Asp. Co. | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 |
| Fruin-Bambrick P.Co. | 2.19 | 2.19 | 2.19 | 2.77 | 2.19 | 2.19 |
| Newark Paving Co. | 2.25 | 2.19 | 2.25 | 2.25 | 2.25 | 2.25 |
| J. F. Shanley | 2.29 | 2.29 | 2.29 | 2.29 | 2.29 | 2.29 |

The 6 contract were awarded the New Jersey Asphalt Co., using asphalt mined in Ventura county, Cal., on a 6-in. concrete foundation, 1½-in. binder course and 2-in. wearing surface, including excavation for pavement. The streets are now graded and curbed.

EASEMENT.—Sacramento, Cal.—John Markley, Secy., Auditing Bd., informs us that the following bids were received May 5 for constructing a concrete easement and bulkhead:

STREET CLEANING.—Columbus, O.—The board of works received the following bids, May 9, for cleaning and sprinkling the streets of Columbus: Wm. Evans and Chas. Hamilton were a tie at 17 cts. a 10,000 sq. ft. of surface for the second district. The prices a 10,000 ft. of surface in the other districts were: First district, 17½ cts.; third, 14 cts.; fourth, 19 cts.; fifth, 23 cts.; sixth, 26½ cts.; seventh, 20 cts.; eighth, 20 cts.; ninth, 30 cts. The successful bidders were: William Evans, first, seventh and eighth districts; Charles Hamilton, third, fourth, sixth and ninth, and the Indianapolis Street Cleaning Co., fifth district.

WATER PIPE, ETC.—Schenectady, N. Y.—Geo. F. Ingersoll, Supt. Water-Works, writes us that the only improvement to the water-works this year will be the laying of 17,500 ft. of 4, 6, 8 and 16-in. mains, 48 fire hydrants, 85 gate valves and boxes. The contract for the pipe was let to Chas. Millar & Son, Utica, N. Y., at $18.20 a gross ton; also for specials, at 1.75 cts. a lb.; that for hydrants, valve and boxes, to the Ludlow Valve Works, Troy; and that for laying pipe to Joseph H. Clement, Schenectady.

ARC LIGHTING.—Elmira, N. Y.—M. H. Murphy, Cy. Clk., informs us that the following bid was received, May 2, for furnishing 240 arc lights. Elmira Illuminating Co., Gen. Mgr., J. B. Cahoon: For 2,000 c. p. arc lamps, one year, $150 a lamp a year; three years, $140; five years, $135; said lamps to burn all and every night in the year, being lighted from one-half hour after sunset until one-half hour before sunrise. Second: Incandescent lamps of 32 c. p.: One year, $32 a lamp a year; three years, $30; five years, $27.50; the lights to burn the same hours as above; for 25 c. p. incandescent lamps, one year, $25 a lamp a year; three years, $22.50; five years, $20; none of the former class of lighting ever having been in use in the city. Third: The city is now lighted by 1,200 c. p. arc lamps. The company has apparatus installed in the lighting station for furnishing such light, and therefore submitted the following bid thereon: One year, $102.20 a lamp a year; three years, $97.50; five years, $95. For 300 lamps and over: One year, $100 a lamp a year; three years, $95; five years, $91.25, or for a 10-year contract 240 lamps at the start, $95, price to be reduced to $90 a lamp when number of lamps used reaches 300, and price to be reduced to $85 when number of lamps used reaches 350, this last price to govern any additional lamp installed over and above 350 during the lifetime of the contract.

Bids Received at Sacramento, Cal., May 5, for Constructing a Concrete Easement and Bulkhead.

| Bidder. | Concrete, 1,623 cu. yds. | Stone riprap, 1,666 cu.yds. | Piles, Round, 4,150 lin. ft. | Piles, Driving, 200 each. | Waling, 6,060 ft. | Sheet piling, 188,000 ft. B.M. | ....... 5,000 cu.yds. | Total. |
|---|---|---|---|---|---|---|---|---|
| Darby, Laydon & Co., San Francisco, Cal. | $8.90 | $4.00 | $0.17 | $2.50 | $22.00 | $29.00 | $0.30 | $26,625 |
| Thomson Bridge Co., San Francisco, Cal. | 8.50 | 5.60 | .25 | 3.00 | 40.00 | 23.00 | .40 | 32,305 |
| Jas. A. McMahan, San Francisco, Cal. | 9.00 | 6.50 | .25 | 2.00 | 25.00 | 30.00 | .20 | 33,845 |
| City Street Impvmt. Co., San Francisco, Cal. | 9.58 | 4.53 | .13 | 2.00 | 17.50 | 22.57 | .27 | 29,914 |
| Healy, Tibbetts & Co., San Francisco, Cal. | 8.20 | 6.90 | .18 | 2.00 | 24.00 | 24.00 | .14 | 31,488 |
| McLean Bros., Sacramento, Cal. | 8.38 | 4.80 | .135 | 2.05 | 24.00 | 24.00 | .10 | 27,910 |
| F. Lowry, Sacramento, Cal. | 9.20 | 6.60 | .18 | .85 | 42.00 | 24.25 | .40 | 33,734 |
| Clark & Henry, Stockton, Cal. | 6.52 | 4.65 | .14 | .95 | 32.50 | 24.25 | .065 | 24,266 |
| James Touhey, Sacramento, Cal. | 6.15 | 5.15 | .16 | 2.00 | 25.00 | 25.00 | .15 | 25,407 |
| Montgomery & Jones, Woodland, Cal. | .... | .... | .16 | 1.80 | 24.45 | 24.45 | .075 | ...... |
| Cotton Bros & Co., Oakland, Cal. | 7.85 | 5.95 | .20 | 2.25 | 23.00 | 22.25 | .13 | 29,108 |

BRICK PAVING.—Tampa, Fla.—J. N. Hazlehurst, Ch. Engr., Bd. Pub. Wks., informs us that the following bids were received May 5 for brick paving, as advertised in Engineering News; the bids are for a total of 44,568 sq. yds. of vitrified brick paving:

| Bidder. | Vitrified br'k paving, Sq. yds. | A sq.yd. | Total. |
|---|---|---|---|
| S. S. Leonard Co., Jacksonville, Fla. | 17,990 | $1.44 | $25,906 |
| “ “ “ | 26,578 | 1.42½ | 37,874 |
| W. M. Lasley, Chattanooga, Tenn. | 26,578 | 1.65 | 43,854 |
| “ “ “ | 17,990 | 1.74 | 31,303 |
| Alcatraz Paving Co., Philadelphia, Pa. | 26,578 | 1.79 | 47,578 |
| “ “ “ “ | 17,990 | 1.89 | 34,001 |
| J. W. Sibley, Agent, Birmingham, Ala. | 44,568 | 1.71 | 76,211 |
| W. H. Kendrick, Tampa, Fla. | 24,190 | 1.45 | 35,076 |
| “ “ “ | 20,378 | 1.38 | 28,122 |

| Bidder. | Granite curbing, 21,322 lin.ft. | |
|---|---|---|
| S. S. Leonard Co., Jacksonville, Fla. | $0.42 | $8,955 |
| W. M. Lasley, Chattanooga, Tenn. | .50 | 10,661 |
| Alcatraz Paving Co., Philadelphia, Pa. | .41 | 8,742 |
| John W. Sibley, Agent, Birmingham, Ala. | .48 | 10,235 |
| W. H. Kendrick, Tampa, Fla. | .54 | 11,514 |
| G. W. Walker & Co., Lithonia, Ga. | .32½ | 6,930 |
| Walter H. Simmons, Decatur, Ga. | .43 | 9,168 |

CEMENT SIDEWALKS, ETC.—Lafayette, Ind.—W. K. Eldridge, Cy. Engr., informs us that the following bids were received May 9 for cement sidewalks and curbing:

| Bidder. | Front foot, complete. |
|---|---|
| Granitoid Paving Co., Chicago, Ill. | $189 |
| Galloway & Ireland, Attica, Ind. | 187 |
| Parker & Yeagey, Lafayette, Ind. | 175 |
| Spiker & Salisberg, Aurora, Ill. | 155 |
| Miller & Miller, Terre Haute, Ind. | 151 |
| Wm. F. Frey, Lafayette (accepted) | 149 |

LAYING WATER PIPE.—Boston, Mass.—We are informed that the Metropolitan Water Board has awarded the following contract to H. A. Hanscom & Co., West Medford, Mass., for laying water pipe in a portion of section No. 16: Laying 12-in. cast-iron pipe, 2,000 ft., 56 cts.; laying 4-in. pipe for blow-offs, 25 cts.; rock excavation above grade, 10 cu. yds., $1.50; rock excavation, below grade, 10 cu. yds., 10 cts.; earth excavation, below grade, 20 cu. yds., $1.00; setting air valves, 2, $3.00 each; chambers for valves less than 20 ins. in diameter and air valves, 6 chambers, $35.00; concrete masonry, 5 cu. yds., $1.00; total, $1,383.

WATER PIPE AND SPECIAL CASTINGS.—Rochester, N. Y.—The following were received by the executive board May 10 for furnishing cast-iron water pipe and special castings; the 8, 6 and 4-in. pipe and special castings were awarded May 11, to the Lake Shore Foundry, Cleveland, O.; the 20, 16, 12 and 10-in. pipe and special castings were awarded to the Buffalo Cast-Iron Pipe Co., Buffalo, N. Y.; Ch. Engr., E. Kuichling:

LAYING WATER MAINS.—Boston, Mass.—We are informed that the following bids were received by the Metropolitan Water Board, May 9, for laying water mains in Section No. 20, as advertised in Engineering News, and the contract awarded H. A. Hanscom & Co.:

Bids Received at Boston, Mass., May 9, for Laying Water Main in Section No. 20.

| Bidder. | Laying cast-iron pipe, [illegible]-in., 18 lin. ft. | [illegible]-in., c.-i. and st'l, 17,300 lin. ft. | 30-in., for conns., 50 lin. ft. | 24-in., for conns., 50 lin. ft. | 12-in., for blow-offs, 320 lin. ft. | Excavation, Rock, ab've grd., 2,000 cu. yds. | Rock blw. grd., 50 cu. yds. | Earth, below grade, 100 cu. yds. | Sett'g air valves, 12 valves. | Chambers, [illegible], 30 and 24-in. valves, 6, each. | Blow-offs, by-passes and air vlvs, 21, each. | Concrete masonry, 50 cu.yds. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H.A. Hanscom & Co., W.Medford | $5.00 | $0.98 | $2.00 | $1.50 | $0.75 | $2.35 | $4.00 | $1.50 | $3.00 | $50.00 | $35.00 | $5.50 | $25,819 |
| J. D. Gennaro, Boston | 2.00 | 1.00 | 1.00 | 1.00 | .50 | 3.75 | 4.00 | .50 | 3.00 | 50.00 | 35.00 | 6.00 | 26,717 |
| M. Russo, Boston | 2.50 | 1.08 | 1.50 | 1.00 | .50 | 3.25 | 6.00 | .70 | 3.00 | 70.00 | 30.00 | 5.00 | 27,220 |
| The C. H. Eglee Co., Boston | 1.15 | 1.15 | 1.15 | 1.15 | 1.00 | 3.00 | 4.00 | .50 | 3.00 | 50.00 | 35.00 | 5.00 | 27,817 |
| S. W. Frescoin, Reading, Pa. | 2.50 | 1.17 | 1.25 | 1.25 | .50 | 3.00 | 4.00 | .80 | 2.00 | 46.00 | 36.00 | 5.00 | 28,157 |
| A. W. Bryne Constn. Co., Boston | 2.00 | 1.13 | 1.50 | 1.50 | .90 | 3.25 | 5.00 | 1.00 | 10.00 | 60.00 | 40.00 | 5.00 | 28,443 |
| Bruno & Salamone, East Boston | 2.10 | 1.21 | 1.21 | 1.00 | .65 | 2.95 | 3.50 | .65 | 3.00 | 49.00 | 35.00 | 5.75 | 28,782 |
| O'Rourke & Nelson, Boston | 2.00 | 1.35 | 1.50 | 1.25 | .50 | 3.00 | 5.00 | 1.00 | 2.50 | 60.00 | 40.00 | 5.00 | 31,519 |
| C. E. Trumbull & Co., Boston | 2.00 | 1.39 | 1.39 | 1.39 | 1.00 | 3.00 | 3.00 | 1.50 | 5.00 | 80.00 | 40.00 | 6.00 | 32,522 |
| E. W. Everson & Co., Boston | 2.25 | 1.70 | 1.70 | 1.70 | 1.70 | 4.00 | 5.00 | 2.00 | 3.00 | 65.00 | 35.00 | 6.00 | 40,076 |
| MacRitchie & Nichol, Chicago, Ill. | 3.50 | 1.85 | 2.50 | 2.00 | .75 | 3.00 | 5.00 | 1.00 | 5.00 | 45.00 | 40.00 | 8.00 | 40,453 |

GARBAGE COLLECTING, ETC.—Burlington, Ia.—The following bids were received by the common council May 9 for collecting and disposing of the garbage for one year: Peter Gally, one or more wagons, with teams and two men to each wagon, $2.75 a day for each team and men, with one man at the dumping ground. Winter garbage, $35 a month. Isaac Kelly, one-year contract, $2.90 a team a day and $35 a month for winter garbage. Two-year contract, $2.75 a team a day and $35 a month for winter garbage. Herman Hellmuth, two-year contract, ending May 1, 1900, $2.95 a team a day. Winter dumping, $39 a month. Councilman Kleppisch may be addressed.

Bids Received at Rochester, N. Y., May 10, for Cast-Iron Water Pipe and Special Castings.

| Bidder. | Cast-iron pipe. 20-in., 70 tons. | 16-in., 18 tons. | 12-in., 12 tons. | 10-in., 58 tons. | 8-in., 40 tons. | 6-in., 188 tons. | 4-in., 14 tons. | Special cast'gs, 20 tons. | Total. |
|---|---|---|---|---|---|---|---|---|---|
| Lake Shore Foundry, Cleveland, O. | $16.20 | $16.20 | $16.20 | $16.20 | $16.20 | $16.20 | $16.20 | $35.00 | $7,180 |
| Buffalo Cast-Iron Pipe Co., Buffalo, N. Y. | 15.27 | 15.62 | 15.79 | 15.79 | 16.57 | 16.62 | 18.08 | 35.00 | 7,196 |
| Chas. Millar & Son, Utica, N. Y. | 16.50 | 16.50 | 16.50 | 16.50 | 16.50 | 16.50 | 16.50 | 35.00 | 7,300 |
| Donaldson Iron Co., Emaus, Pa. | 16.68 | 16.68 | 16.68 | 16.68 | 16.68 | 17.13 | 18.47 | 35.00 | 7,482 |
| R. D. Wood & Co., Philadelphia, Pa. | 16.95 | 16.95 | 16.95 | 16.95 | 16.95 | 16.95 | 16.95 | 38.00 | 7,540 |
| Warren Foundry & Machine Co., Phillipsburg, N.J. | 17.20 | 17.20 | 17.20 | 17.20 | 17.20 | 17.20 | 17.20 | 35.00 | 7,580 |
| McNeal Pipe & Foundry Co., Burlington, N. J. | 17.59 | 17.59 | 17.59 | 17.59 | 17.59 | 17.59 | 17.59 | 35.00 | 7,736 |
| Reading Foundry Co., Reading, Pa. | 17.60 | 17.60 | 17.60 | 17.60 | 17.60 | 17.60 | 18.20 | 36.00 | 7,768 |
| Jackson & Woodin Mfg. Co., Berwick, Pa. | ..... | 17.18 | 17.18 | 17.18 | 17.18 | 17.18 | 17.18 | 37.00 | 6,409 |

ELECTRIC LIGHTING.—Port Huron, Mich.—Press reports state as follows: Only one bid was presented to the council May 8 for the public lighting. The bid was that of the Excelsior Electric Light Co., the present contractor, and it offered to light the city, 120 lights or more by the Philadelphia plan (moonlight schedule), at $72.50 a light a year on a 3-year contract, or $70 a year on a 5-year contract, and $80 a year on a 3-year contract, $75 a year on a 5-year contract, lights to burn every dark night. The bid on the 3-year contract, Philadelphia plan, is the same as the price paid now. The opening of the bid discloses the death of the project to establish a rival plant. Some months ago several citizens were granted a franchise conditional upon its acceptance by June 1, and their failure to present a bid for the city lighting is considered an abandonment of the project.

## INDUSTRIAL NOTES.

THE BETHLEHEM IRON CO., South Bethlehem, Pa., has a new order from the U. S. government for thirty-five 5-in. rapid-fire guns for the army.

MR. JOHN ACTON, manufacturer of gate valves, has removed his offices from 79 and 81 Washington St. to his own building, 118 John St., Brooklyn, N. Y.

MEACHAM & WRIGHT, dealers in Utica and Portland cements, have removed their offices from 98 Market St. to 308 and 309 Chamber of Commerce Bldg., Chicago.

THE SHIFFLER BRIDGE CO., Pittsburg, Pa., is said to have the contract for the new ore stock yard of Laughlin & Co., of that city, including about 1,000 tons of plate girders and columns.

MR. GUIDO FERRARI, manufacturer of mathematical, scientific and drawing instruments, has removed his office from 911 Vine St. to the southeast corner of Seventh and Chestnut Sts., Philadelphia.

THE COUGHLIN-SANFORD SWITCH CO. has removed its headquarters from Baltimore, to the St. Paul Bldg., New York. The company announces that a branch office will soon be opened in Chicago.

THE WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa., is building two three-phase, 500-HP. belt-driven dynamos of 3,000 alternations and 2,400 volts for the Canadian Niagara Power Co., Niagara Falls.

THE CAHALL SALES DEPARTMENT, Pittsburg, Pa., has the contract for 10,500 HP. of Cahall water tube boilers for the Lorain Steel Co., Lorain, O. Of these 2,500 HP. will be equipped with Cahall chain grate stokers.

A. SCHRADER'S SON, manufacturer of submarine armor and diving apparatus, 32 Rose St., New York, reports that he is now putting upon the market an improved air pump that will effectively supply two divers at the same time.

MR. WILLIAM H. TURRELL, 22 Clinton St., Newark, N. J., formerly President of the Standard Paving Co., has a contract from the Erie R. R., to construct the asphalt train platforms for its new train shed at Jersey City, N. J., at a cost of $15,000.

THE AMERICAN STOKER CO., which recently moved its main offices from Dayton, O., to the Garfield Bldg., Brooklyn, N. Y., announces that it has been compelled to obtain more commodious quarters in the Washington Life Bldg., Broadway and Liberty St., New York.

THE P. H. & F. M. ROOTS CO., Connersville, Ind., has an order for two large size blowers for Australia, and is also busy with regular work on blowers, rotary force pumps and gas exhausters. It recently installed a large size pump, which maintained a suction lift of 18½ ft., without a foot valve or priming.

THE SPRAGUE ELECTRIC CO., New York, has a contract for seven worm-gear, drum elevator machines for the Government Printing Office, Washington, D. C. A machine of this type was ordered two years ago, and its satisfactory service has led to a second order. The company has recently shipped several direct-connected generating sets for isolated lighting plants, as well as a large number of Lundell fan motors, to India and Japan.

THE SOUTH SIDE ELEVATED R. R., of Chicago, which is installing the Sprague multiple-unit system, as noted last week, reports that as soon as the steam trains are off the line the schedule will be reduced from 38 to 30 minutes, and that the old steam service mileage will be made with 15% fewer cars. The strains on the structure are noticeably reduced, and the increase in traffic has already added considerably to the receipts.——The "Galvno plastic," a firm of electrotypers and stereotypers in Berlin, Germany, has recently been fitted out by F. Wose & Co., of New York, with an electric plant. Every machine run by power has its own separate Lundell motor, which were supplied by the Sprague Company.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has just completed a 300-ft. steel bridge for the Conway Electric St. Ry., Conway, Mass., to carry its line over the Deerfield River; also a new fireproof casting shop for the Whitin Machine Co., Whitinsville, Mass., and a fireproof boiler house for the Hender Machine Co., Torrington, Conn. ——The company has a contract for the steel roof trusses and covering of the new power station and car house being erected by the Spencer, Warren & Brookfield St. Ry. Co., at Brookfield, Mass. The dynamo and engine room roofs of this building will be lined with patent anti-condensation roof lining, which is said to be almost universally used for roofs of this nature throughout the country, as it prevents the condensation of moisture from the underside of the roof covering, which causes considerable damage when it drops upon the machinery beneath.

THE EDWARD P. ALLIS CO., Milwaukee, Wis., is reported to have an order from Laughlin & Co., Ltd., Pittsburg, for a vertical steeple-type compound blowing engine for the latter's Eliza Furnaces. The air cylinders are to be 84 ins. diameter and the steam cylinders 42 ins. and 80 ins. diameter, respectively. The flywheel will be 24 ft. in diameter and will weigh 100,000 lbs., and the engine will be capable of delivering 40,000 cu. ft. of

THE MICHIGAN BRASS & IRON WORKS, Detroit, has secured the following city contracts, among others, for this year: Al hydrants for Detroit; all valves from 4-in. to 36-in., inclusive, for Newark, N. J.; all 4-in. to 6-in. hydrants and all 4-in. to 50-in. valves, inclusive, for Pittsburg; the brass corporation work for Chicago; all 12-in. to 30-in., inclusive, check valves for St. Louis; all brass corporation work for the Detroit City Gas Works, Detroit; all valves up to 36-in. for McKeesport, Pa.; all hydrants for Charleroi, Pa., and the hydrants and valves for Holly Springs, Miss.; also a contract for six 36-in. and six 42-in. valves for the Worthington pumping station, Chicago.

NEW COMPANIES.—Lake Erie Limestone Co., Pittsburg, Pa.; $50,000, commencing with $500; to manufacture lime; U. A. Andrews, G. W. Van Fleet, and A. M. O'Brien, of Pittsburg; Edward Reed, Coraopolis, Pa.; J. R. McCreery, Allegheny, Pa.

California & Oriental Steamship Co., Jersey City, N. J.; $5,000,000, commencing with $100; to operate steamships, etc.; J. H. Hoffner, New York; J. D. Phillips, W. J. Cosgrove, O. J. Hackett and P. F. W. Ruther, of Brooklyn, N. Y.

Latrobe Steel & Coupler Co., Camden, N. J.; $300,000, commencing with $1,000; to manufacture and sell railway cars; to lay and operate pipe lines for the transmission of gas, oil, etc.; Frank H. Hansell and Geo. H. B. Martin, Philadelphia; H. K. Wood and Charles Dutton, East Orange, N. J.

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